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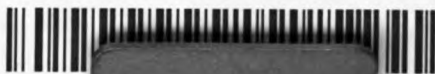
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THE
MEDICAL AND PHYSICAL
JOURNAL.

CONDUCTED BY

SAMUEL FOTHERGILL, M.D.

OF THE ROYAL COLLEGE OF PHYSICIANS; PHYSICIAN TO THE ASYLUM FOR
FEMALE ORPHANS; AND TO THE WESTMINSTER GENERAL, AND
THE WESTERN, DISPENSARIES.

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*Et quoniam variant morbi, variabimus artes;
Mille mali species, mille salutis erunt.*

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THE renewed intercourse with the Continent renders it proper to acquaint the friends of English Literature in those Countries to which the MEDICAL AND PHYSICAL JOURNAL is again accessible, that this work is regularly delivered by THE POST-MASTERS, in all parts of Europe, at THREE GUINEAS per annum, or ONE GUINEA AND A HALF for six months; and persons residing in England, desirous of having this Journal regularly delivered to any friend in any part of the world, may have the Numbers sent as published, on the same terms, by giving their orders, and making payment—

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THE
Medical and Physical Journal.

I OF VOL. XXX.]

JULY, 1813.

[NO. 173.]

For the Medical and Physical Journal.

HALF-YEARLY REPORT *of the* PROGRESS *of* MEDICINE,
from JANUARY *to* JUNE, 1813.

(No. VIII.).

" O beata Sanitas! te præsente, amœnum
Ver floret gratiis, absque nemo beatus."

" Daughter of Pæan, queen of every joy,
HYGEIA! whose indulgent smile sustains
The various race luxuriant nature pours,
And on th' immortal essences bestows
Immortal youth; auspicious, O descend!"

THAT the legitimate professors of the medical art were solicitous only, and above all things, to prevent disease or to restore health, has been believed against the surly argument of the misanthrope, and the flippant sarcasm of the wit: recent events have, however, shaken that faith, but soon to be restored, it is hoped, to that confidence and trust on which the mind can repose with unapprehensive satisfaction.

The leading feature of our last REPORT was drawn from the effort then making by a vast majority of the medical faculty to meliorate professional education, to provide for society practitioners of higher qualification, and to place around the public health a barrier sufficiently substantial to repel the fool-hardiness of ignorance, and impenetrable to the impudence and cunning of an empiricism which had too long been suffered to undermine the springs of health and life. A narrowness of plan, and an apparent, but only apparent, selfishness, embarrassed and retarded, at the outset,

NO. 173.

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this

this great public measure. We spoke of it as we felt, and take some credit for having suggested an extension which will finally accomplish an object that must, in its results, benefit the empire, by substituting for the heterogeneous mass* now assuming the title and functions of medical practitioners, persons properly educated, of ascertained qualifications, respectable by the class of society from whence they will be taken, and by having passed through the series of essential gradations.

* Can this require explanation? The mass of the medical faculty of the British empire is, indeed, an heterogeneous compound. Physicians, doctors of the English universities, fellows of the Royal College, versed in all human science, learned, honorable, and approximating to the "corinthian capital of society," are "pushed from their seats" by doctors of no universities, unlearned men and even women, without science, and without honor. The Abernethys, Coopers, and Brookes's, have opposed to them self-created surgeons, rasps of shin-bones, advertising gonorrhœa cures, and men whose chirurgical knowledge has been acquired by carrying a box after the dresser at an hospital. The legitimate apothecary is circumvented by the druggist who was yesterday a grocer; by the chemist who hardly knows a crucible from a cauliflower. To the educated physician, to the regular surgeon, to the instructed apothecary, this is personally, perhaps, unimportant; but what is it to the public? pain, mutilation, death. London, that common sewer, teems with this surreptitious multitude. From Tower-hill, a doctor advertises that "all persons afflicted with any complaint *whatever*, may have an easy, speedy, and certain cure, without confinement," by applying to the said doctor. Mrs. ——— cures the king's evil radically, and, what is more, safely too. Another benevolent female, at Battle-bridge, continues, as usual, to cure consumptions; and still another at Islington, cures cancer. Even at the college-gate of Edinburgh lived, very lately, a female "*practitioner in medicine*" from England; and the druggists of a midland county at this moment are querulously complaining that a horrible attempt is making to take from them the privilege of prescribing for the sick. We are not among those who think this must be endured, but believe that laws may be framed to protect society against these depredators, not on money but on health. If it is the fiat of Providence that good and evil be mingled, and that in the moral as in the natural world the noxious plant shall grow beside the salutiferous herb,

Terra salutiferas herbas, eademque; nocentes

Nutrit, et urticæ proxima sæpe rosa est;

the gardener may exercise his office; the poisonous may be extirpated, and the doubtful confined to their quarters.

Those

Those who have read the *Reports* on the progress of the medical art, which for some years have been published in this Journal, will readily appreciate the anxiety always there manifested for the improvement of, indeed, a collateral and auxiliary branch of that art, but, from its operation upon the whole system of medical science, of intrinsic importance. Under the comprehensive term **MEDICAL JURISPRUDENCE**, exists a master movement, which may, when duly organized, direct, control, inform, and animate, the whole machine.

The association formed by the apothecaries and surgeon-apothecaries of England and Wales, has a direct reference, in its views and operation, to a leading principle in a *system of medical police*. To improve in knowledge and advance in respectability this class of practitioners, surely involves a great public benefit: to prevent the idle, the dissolute, the ignorant, or the cunning empiric obtruding on society, under any anomalous appellation, with his balms, his balsams, and his cordials, must surely lead to public safety.

Acting, as we think, on this principle, our last *Report* left the *Committee* of the "**COMMUNITY of ASSOCIATED APOTHECARIES and SURGEON-APOTHECARIES**" adjusting and regulating their purposed application to the legislature. The opinion, advice, and assistance of this branch of the faculty had been collected from the provinces; and the deputies of numerous districts attended a general meeting of the Association in London, in the month of March. Consequent on this meeting, the purposed application, the preliminary steps for which had before been taken in the usual form of a Bill presented to the House of Commons, was determined to be vigorously pursued. But fortunately, perhaps, for the cause, which a spirit of public benevolence must countenance and cherish, this Bill, immature, hurried, imperfect, and defective in detail, though incontestibly sound in principle, was withdrawn before the second reading, to be revised and improved, with the avowed intention of again submitting it to parliament.

On some peculiarities of this Bill, and on the combination

4 *Half-yearly Report of the Progress of Medicine*

of causes that induced to its postponement, we hazard a few cursory observations.

It is evident that in framing this Bill the Committee must have had many jarring interests to reconcile, arising even in the body to which it particularly applied; much external opposition to conciliate or to conquer, arising out of public opinion, or out of private apprehension. Some thought it too extended; others esteemed it too limited. Some asserted it did nothing if it did not annihilate the druggist. Some contended for the apothecaries' right to demand fees. One district had this, another had that, local interest to satisfy. Pressed by the multitude of claims, one often in direct opposition to another, and desirous, probably, to attend to every demand, and to gratify every wish, the Committee seems to have lost sight of, or to have mixed too much with other views, the main spring and principle of their project. To improve the school education, *ab initio*, of the apothecary and surgeon-apothecary; to perfect the students of that class in the elements of science; to prevent unqualified persons entering this department of the profession, by the barrier of a strict examination; seem to have been, and should continue to be, the vital principle animating and directing every view and motive of this application to the legislature. But embarrassed, probably, by intricacy of interests, and operated on by the influences above stated, the Committee suffered clauses, very loosely connected with this great principle, to be inserted in the Bill. The incongruity and inequitable extent of these hastily admitted clauses, a knowledge of the public opinion respecting them, and an ascertainment of the opposition to which they gave rise, determined the Committee to postpone the prosecution of the measure at that time.

That the objections to this Bill, founded on the clauses above alluded to, so far as those clauses went, were legitimate, will hardly be denied; but how they gave rise to another very formidable portion of opposition, will not easily be proved, but by that opposition being withdrawn with the objectionable clauses. That the privileges and rights of the College of Physicians and the Court of Assistants of the College

lege of Surgeons could be affected by this Bill in even its most objectionable form, we are not able to say; but we know that the public would have been largely, essentially, and permanently benefited by passing it into a law, even in its faulty state. Under its auspices and operation, a race of practitioners to whom the public health is principally entrusted, would have necessarily arisen, improved in every thing that is valuable. It would also have possessed the inestimable property of inducing progressive advancement towards perfection in an employment, the objects of which are of no less magnitude than the health and lives of the population.

That a measure of this public utility, (for who will say that improvement in medical knowledge, and an assurance that no person ignorant of the art could thereafter practise medicine, is not a measure of public utility?) should have an interest opposite to that of the Royal College of Physicians, and the Court of Assistants of the College of Surgeons, must be viewed as a serious misfortune. But how these bodies will justify their opposition to a measure demonstrably beneficial to society, upon the ground of its becoming, probably and eventually, injurious to their corporations, will be looked for with anxious curiosity. Our respect for these bodies will make us lament that the public should inquire if it be essential to the support of their preponderance, wealth, and influence, that the Apothecary and Surgeon-Apothecary, to whom the health of the community is entrusted in the proportion of ten to one, should be ignorant and depressed, debased by the intrusion of empiricism, and subjected to the proud man's contumely. We should be concerned to have it made a matter of notorious investigation whether the members of these colleges are positively wise and scientific, or relatively so only; whether their reputation must be supported by comparison with another branch of the profession, which, by their opposition, it will be inferred they labor to keep uneducated and ignorant; and whether their wealth and their influence must accumulate by an unavoidable consequence,—the accumulation of human misery.

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To make the faculty acquainted with the proceedings in this great and even national question, was a promise formerly made to our readers. We have kept our word thus far, and shall from time to time pursue the same line. Of the probable termination of these proceedings, as to time, nothing determinate can be said; of their final success there is not, however, much doubt, because

1st, Experience has taught the Committee prudence and steady perseverance.

2d, Because the principle of the application to the legislature is founded on a PUBLIC GOOD.

Though the improvement of medical science be one of the most desirable of all things to society, that improvement becomes a dead letter and inefficient, if it is not generally understood and judiciously applied to practice; and unless the legislature provides, by proper laws, for the means of having it so understood and applied, industry vainly labors, and the light of genius becomes obscured by the surrounding gloom of ignorance. The reflection that in the present condition of medical police in this country, the advantages that arise from an improved state of the science are actually lost to society in a most extensive degree, might be expected to operate a concurrence of interests among the faculty, and to induce to the establishing of an efficient code of MEDICAL JURISPRUDENCE. That this concurrence does not at present exist is to be lamented, but it must not prevent our endeavor to promulgate such facts as come under our notice: it is a duty to make the best and the most of things as they are.

Since the publication of the preceding Report, in the month of January of this year, anatomy and physiology have received the additions of a work from Dr. Monro; an Essay on the Absorbents, by Mr. Pring; the Annual Oration at the Medical Society of London, by Mr. Saumarez, on the Principles of Physiological and Physical Science; and the first fasciculus of a work of considerable excellence on the Morbid Anatomy of the Liver, by Dr. Farre. The work of Dr. Monro, in three octavo volumes, and a volume of plates, is an abstract of the course of lectures on Anatomy and

and Physiology, long delivered at the university of Edinburgh, by the celebrated individuals of that family. It embraces a very extended view of the subject, both as regards the natural state and healthy functions of the animal frame, and its diseased alterations and morbid actions. The little volume of Mr. Pring professes to comprise a history of the discovery of the absorbent system, a cursory view of the anatomy and physiology of that system of vessels and glands, an account of its morbid condition, and some inquiry into the relation that exists between the absorbing and secreting systems. The physiological and physical opinions of Mr. Saumarez have been so far explained in the preceding Numbers of our Journal, that few of our readers will remain quite unacquainted with them. In the essay now before us, Mr. Saumarez defines MAN to be "a rational soul in an animated body, which it employs as its instrument;" and this gives the occasion for exercising a severe castigation upon M. Richerand, who, in his Elements of Physiology, twice translated into English, asserts, "that our physical holds our moral nature under a strict and necessary dependence; that our vices and our virtues, sometimes produced, and often modified by education, are frequently too the result of organization." This assertion, which strikes to the root all moral restraint, and the assumed data on which it is founded, Mr. Saumarez attacks with the feeling and ardent eloquence of a man who is himself convinced of the existence of moral good and moral evil, and with the knowledge of an unprejudiced naturalist, who views a series of facts without being bound down by the confusion and bias of hypothesis. A principal dogma in the hypothesis of Richerand is, "*that the measure of the understanding is according to the number and perfection of the organs of sense.*" The French physiologist having thus far committed himself, it seemed not very difficult to refute his hypothesis by the simple fact as it really stands in nature. So far from Richerand's assumption being true, it is demonstrable that the *organs of sense are far more perfect in those animals that have the smallest than in those which have the greatest portion of understanding.* Mr. Saumarez produces a number of instances to prove this fact, and

and we apprehend he is supported by general observation. As the friends of morality, of religion, and of social order, we become a party with this able advocate ; and whatever may have been our opinion on some of his physical and physiological novelties, we believe him now placed on firm ground, and consider that we participate as auxiliaries in the credit of repelling the dangerous frivolities of a philosophy whose incessant object it is "*to elevate and to humanize the brute, whilst it degrades and brutalizes the man.*"

The first fasciculus, the only one which has yet appeared, of Dr. Farre's work on Morbid Alterations of Structure in the Liver, has considerably enriched this branch of the art, without, however, bringing with it the satisfaction of having suggested any remedial process : on the contrary, it shows that the two forms or species of disease of the liver, which this fasciculus describes under the terms *Tubera circumscripta*, and *Tubera diffusa*, are incurable. If we be considered as too fastidious when we object to the compound appellation *Morbid-Anatomy*, as designating with precision the investigation of diseases by anatomy, or as expressing unequivocally the anatomy of morbid parts, we are sure our readers will fully agree with us, as we do with the learned and ingenious author of this work, that inquiries thus prosecuted improve the diagnostic part of medicine, by connecting, as far as it can be done, the sign with the morbid change. It will not, however, be admitted, with Dr. Farre, that those two species of *Tubera* are absolutely incurable, but that investigations pursued with the candor, ingenuity, and science, manifested in this specimen of *Morbid-Anatomy*, (for we are still compelled to employ this equivocal term,) may eventually produce a degree of knowledge on this subject more favorable to the patient, and more honorable to the art.

Animal chemistry, closely connected with the preceding branch of natural science, has been much illustrated by Dr. Berzelius, professor of chemistry in the College of Medicine at Stockholm ; and his labors have been rendered accessible to the English reader by a translation of his progress and present state of this art, by Dr. Brunnmark. In another quarter

quarter Dr. Berzelius has also given to the English reader a general view of the composition of animal fluids. A paper, submitted to the Medical and Chirurgical Society of London, by this ingenious Swede, goes largely into the subject. Blood he makes the principal object of his inquiry. The fibrin is subjected to the action of caloric by boiling in water—to alcohol—to æther—to acetic acid—to weak muriatic, nitric, and sulphuric acid—and to caustic alkali. The chemical properties of the coloring matter are inquired into by a similar process; and a particular investigation is instituted for ascertaining the influence of iron for producing the color of this matter. If, as our countryman, Mr. Brande, has asserted, the coloring matter of blood is intirely independent of iron, this part of Dr. Berzelius' inquiry is extremely futile. The serum, the albumen, and the salts of the blood, become also subjects of this chemist's attention. If it is incompatible with our design to go into them with the ingenious author, it will not be unacceptable to our readers to be made acquainted with the results of Dr. Berzelius' labors on this part of his subject.

“ Blood is composed of one portion, which is liquid and homogeneous, and of another which is only suspended, and spontaneously separates when at rest.

“ The liquid part is a solution of much albumen and a little fibrin, both combined with soda. It also contains some other saline and animal substances, but in very small quantity.

“ The portion which is suspended is the coloring matter. It differs from the albumen chiefly in its color, and its insolubility in serum. The color seems to be owing to *iron*, of which it contains $\frac{1}{3}$ per cent. of its weight, but which cannot be separated from it as long as it continues to be coloring matter. This separation can only be effected by combustion, or by the concentrated acids, both of which agents entirely decompose the substance with which the metal was combined. The coloring matter cannot be artificially produced by uniting albumen with red sub-phosphate of iron.

“ Fibrin, albumen, and coloring matter, resemble each other so closely, that they may be considered as modifications of one and the same substance. These three substances pro-

duce,

duce, when decomposed, but do not contain, earthy phosphates and carbonate of lime; and indeed the entire blood contains in solution no earthy phosphate, except perhaps in too small a quantity to be detected.

“The albuminous contents of the blood will unite with acids, and produce compounds, that may be termed saline; these, when neutralized, will dissolve in water, but separate on adding an excess of water. Nitric acid, digested with the albuminous contents, forms an insoluble compound, consisting of albumen in an altered state, and of the nitric and malic acids. This property of combining with acids, is retained in some instances by the albumen, after it has undergone the changes produced in the secretory organs; as, for instance, in the peculiar matter of the bile, milk, &c.

“The blood contains no gelatine.”

The secreted fluids, though obscure as to their mode of formation, are highly important in their results, either as performing some office in the animal economy, or as unloading it of something that would be oppressive if retained. These secreted fluids are divided into two classes, one of which is intended for some ulterior process in the system, the other to be directly discharged from the body. It is an extremely curious fact, that the fluids of the first class are all *alkalies*, and those of the second all *acids*.

The secreted fluids noticed by Dr. Berzelius, are bile, saliva, the mucus of the mucous membrane, mucus of the trachea, mucus of the gall-bladder, mucus of the urinary passage, fluids of serous membranes, humors of the eye, fluid of perspiration, urine, and milk. Why our author has neglected to notice one of the most important of the secreted fluids, *semen*, cannot easily be known.

Of the peculiar biliary matter, called *Pieromel* by Thouard, Berzelius gives this account. It has an excessively bitter taste, followed by some sweetness; the smell is also peculiar, and the color in most animals varies from green to greenish yellow. It is soluble in water, and its solubility is not in the least promoted by the alkali of bile; since, when this is neutralized by any acid, the peculiar matter does not separate; it also dissolves in alcohol in all proportions. Like
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the albuminous materials of the blood of which this peculiar matter is composed, it will unite with acids, producing compounds of two degrees of saturation, and hence, of solubility. The acetous acid, which gives soluble compounds with the albumen of the blood, does the same with the peculiar matter of the bile; and hence this matter is not precipitated on adding this acid to bile, though it falls down on the addition of sulphuric, nitric, or muriatic acids. It is this sparingly soluble compound of biliary matter with a mineral acid which has been mistaken by many chemists for a resin; since it possesses the external characters of a resin, melts when heated, dissolves in spirit of wine, and is again precipitated by the addition of water. The alkalies, alkaline earths, and alkaline acetates, decompose and dissolve it: the former, by depriving it of its combined acid; the latter, by furnishing it with acetous acid, which renders it soluble in water.

The peculiar matter of the bile also combines with many metallic oxides into a pulverulent mass; and the resiniform compound of this matter, and any of the mineral acids, often forms with the same oxides a substance like a plaster, resembling in this respect also the true resins.

The biliary matter may be obtained pure by mixing fresh bile with sulphuric acid diluted with three or four times its weight of water. A yellow precipitate first appears, which must be allowed to subside and be removed; then continue to add fresh acid as long as any precipitate is formed; heat the mixture gently for some hours, and afterward decant the fluid part, and thoroughlyedulcorate the green resin which is left. This resin reddens bitumens, and is partially and sparingly soluble in water. It may be deprived of its acid in two ways: one of them is by digesting it with carbonate of barytes in water, whereby the carbonate is decomposed, and the water forms a green solution, possessing all the peculiar characters of bile: the other way is by dissolving it in alcohol, and digesting the solution, either with carbonate of potash or carbonate of lime, till it no longer reddens bitumens, and then evaporating it to dryness. Either of these methods will give pure biliary matter.

This peculiar biliary matter, when pure, resembles exactly
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desiccated bile. Being soluble in alcohol it might be supposed that it would dissolve in æther, but æther only changes it to a very fetid adipocirous substance, exactly as it acts upon the albuminous matter of the blood. It is surprising that biliary matter gives no ammonia by distractive distillation, therefore it contains no azote; no vestige of azote in any other of the constituent parts of the bile, nor does bile contain ammonia.

Berzelius gives the following result of his analysis of the bile:

Water-----	907.4
Biliary matter-----	80.0
Mucus of the gall-bladder, dissolved in the bile-----	3.0
Alkalies and salts, common to all se- creted fluids-----	9.6
	<hr/> 1000.0

The researches which have been directed to animal substances by the chemists, it will readily be conceived, would not leave untouched that part of the frame which has been deemed the laboratory and store-house of intellect. The peculiar texture, appearance, and believed functions of the brain, have accordingly excited inquiries, ingenious and elaborate, which, we fear, have not yet terminated in any positive and indisputable conclusion. Among the various methods taken to examine the structure, and ascertain, by that means, the functions and actions of the brain and nerves, chemical analysis has been employed, with what effect future observations will determine. The abilities of M. Vauquelin in this department of science, are too well known to suffer his *Analysis of the Cerebral Matter of Man and other Animals*, to remain unnoticed. His predecessors, Gurman, Burghus, Thouret, Fourcroy, &c. in the same inquiry, have not anticipated his labors. Elaborate minuteness, rigid accuracy, and an accustomed eye, combine to render this analysis important, as ascertaining the constituents of the cerebral organ; but they do not develop its physiology.*

* This analysis of the brain, by M. Vauquelin, we think of sufficient importance to demand the insertion of the Memoir, which will be found in another part of our Journal.

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The connection of agriculture with, and its influence on the health of man and other animals, both as it regards alterations produced by its processes on the earth's surface, and by its improvement of alimentary substances, necessarily makes it interesting to the professors of medical science; and as a branch of chemistry it approximates still more to the healing art. The deserved reputation of Sir H. Davy gives to every production of his pen great value and extensive currency: and it is with peculiar satisfaction we observe his talent for investigating nature, applied to the chemistry of agriculture. In his "*Elements of Agricultural Chemistry*," recently published, a very extensive experimental and scientific view is taken of this important subject. An examination of the general powers of matter upon vegetation, whether gravitation, cohesion, chemical attraction, heat, light, or electricity, is instituted; the organization of plants, the constituent parts of soils, and the nature and constitution of the atmosphere, with its influence on vegetable life, are investigated with experienced acumen. An extensive experimental inquiry is made into the product and nutritive qualities of different grasses, and other plants used as the food of animals. With this cursory notice of one of the most valuable publications of the preceding six months, it does not seem to be improper to connect an elegant Essay on the Philosophy, Study, and Use, of Natural History, noticed in our preceding Number. The objects and views of this interesting little volume are most important. The study of natural history affords a sober and certain satisfaction far beyond any other human pursuit. To follow effects up to their causes, and from thence to develope other effects; to collect, arrange, and generalize individual facts, and upon them to found or explain principles, seems to be the proper employment of human intellect. "To trace," as this author happily expresses, "the footsteps of God, the eternal, the infinite, the omniscient, and omnipotent, throughout all Nature—to be initiated in mysteries and laws which produce effects that are necessary for our welfare, or that conduce to our happiness—to seek the knowledge of *His* designs, and of *His* works, to the end that we might more properly

properly appreciate the various objects, both animated and inanimated, by which we are surrounded ; and to regulate our duties and our pleasures by that knowledge," is a direction and occupation of the mind devoutly to be wished. Among much valuable observation contained in this Essay, we notice a constant effort to direct the naturalist's views beyond the surface of nature ; to show him that external lineaments are the least important of the objects subjected to his inquiries ; and that his mind should be directed to explain the connections, dependencies, capacities, and final destinations, of the myriads of forms with which the CREATOR has peopled this earth. "It should be the business of the true naturalist," he says, "to study the works of GOD with a view, and an earnest desire to understand *His* designs respecting them ;—that he should endeavor to learn their utility, both general and particular, rather than to make himself acquainted with their mere external character, their names, or the classes into which they appear naturally separated, though linked ;—that he should regard all created beings as one vast family united together for some great end ; over whom, as lord of the whole, he should extend the offices of benevolence, rather than the spirit of persecution ;—that in using, applying, or changing natural bodies for his own purposes, he should be careful to fulfil, rather than to counteract, the will of the GREAT FATHER and ARCHITECT of the UNIVERSE ; as far, at least, as can be felt and discovered : and, above all, that he should seek to know his own duties in the midst of that beautiful creation, which, like a celestial garden, has been spread out for his footsteps, and given to him as an inheritance."

The practical part of medicine and surgery have each, within the past six months, received some interesting if not important additions.

The destructive effects of that form of fever believed to arise from some certain, or rather uncertain, state of the atmosphere over marshy lands, as its cause, is of so much importance, especially in military expeditions, that every inquiry which tends to clear away the obscurity yet hanging upon

upon the subject, claims particular attention. In the expedition to the island of Walcheren in 1809, the effects of this destructive material, whatever it may be, were felt to a most alarming extent. Many of the physicians and surgeons attached to that army have given full details of the morbid effects produced by this material, but none have yet been able to detect any properties peculiar to it beyond its power of occasioning remittent and intermittent fever. Of its constituent principles we yet remain ignorant; but it seems unquestionable that something is emitted by or exhaled from certain marshy ground capable of producing, most extensively, fevers of a violent and fatal nature. Though Sir Gilbert Blane has not removed this difficulty, we are indebted to him for concentrating many facts relative to the operation of this poison, and on the methods employed to obviate its deleterious effects. Our limits will only permit us to attend to the natural history of marsh miasmata. On the facts stated by Sir Gilbert Blane, (*Medico-Chir. Trans.* vol. iii.) it appears that the whole island of Walcheren, with the exception of some mounds of sand on the western shore, is a dead flat, below the level of the sea at high water, and preserved from inundation by artificial embankments. The soil consists of a fine white sand, known in the eastern counties of England by the name of *silt*,* and about a third part of clay. It is divided into small square inclosures by ditches, which

* *Silt is not a fine white sand*, but a deposition from sea-water of a brownish yellow in the English counties Lincoln, Cambridge, and Norfolk, where it is found in extensive fenny tracts lying toward the sea. In the fens of these counties the alluviae are of two very distinct kinds. The alluvial deposition in that part which lies nearest to the highlands, and which extends several miles into the great level, is entirely, or very generally, a black substance, provincially termed *MOOR*: it lies from one to four feet thick upon a sub-stratum of clay commonly, but sometimes of gravel, and is cut into fuel under the denomination of *TURF*. The alluvial deposition in that part lying toward the sea, is a soft yellow-brown sand denominated *SILT*: it is extremely fertile, and constitutes the most valuable pasturage of the whole district. Remittent and intermittent fevers are extremely frequent

which serve as drains; and these were, in the endemic season, about two thirds full of turbid water. They emitted no smell, but a disagreeable effluvia arose from stagnating pools. The soil seems a mass of alluvial matter like the deltas of great rivers; and the whole islands of Zealand were, probably, formed by the *detritus* carried down by the Rhine and the Scheldt. The poisonous exhalations from soils thus formed, is not animal putrefaction, for it is ascertained that those who are exposed to putrid vapors, such as anatomists and tanners, are not affected with complaints like those arising from marsh miasmata. Water in a state of stagnation, without any ascertainable principle of contamination, seems to generate these poisonous exhalations. The delta of the Nile does not generate intermittent fever, because the inundations of that river obviate the effects of stagnation; while, in the island of Minorca, in places consisting of a very thin soil on a rocky bottom, this fever appears in its severest form, in consequence of stagnant water in channels and pools. The miasmata in Zealand are more noxious than the like exhalations in England. The exhalations of the soil in tropical climates are still more malignant than those of Zealand. In the West Indies, and at Calcutta, ships at the distance of three thousand feet from swampy shores were affected by the noxious exhalations. Many facts are stated by Sir Gilbert Blane to show the extent to which the deleterious miasmata may produce its effect, and the direction which it is most disposed to take; and others, still more valuable, go to prove that certain artificial changes may deprive particular localities of the property by which they generate this poison. The principle of this melioration is doubtless an improved drainage. There are still some facts opposed to this principle, which must be cleared away before it is incontrovertibly established.

frequent on both these surfaces; but they occur most in the driest state of the *fens*. In hot and dry autumns the endemic most prevails, and when the surface of the great level, from the texture of its soil, through which water percolates with rapidity, is extremely arid.

Some particular facts of considerable importance in the treatment of individual diseases have fallen under our notice. Perhaps the most valuable of these are related by Dr. Sutton, who has established assertions by the evidence of numerous cases. The use of opium in *Delirium tremens* he appears to have ascertained in a very decisive manner, and to have suggested an improved treatment of peritoneal inflammation, deserving serious consideration.

The disease denominated *Delirium tremens* by Dr. Sutton, is described as often coming on slowly. For some days previous to the distinct commencement of the malady, the patient complains of being unwell, with loathing of food, listlessness, debility, and want of comfortable rest. He has pain in the head, and sometimes vomits, and is dejected. The pulse, in the commencement of the disease, commonly is not quick; but may be frequently observed to have an unsteady fluttering. There is not much heat on the skin, and the tongue is generally furred and moist. In this stage of the disease, the patient has very little disposition to lie down for any length of time, but is ever uneasy, and desirous of a change of position; and there is a general agitation of the frame, with tremors of the hands. Associated with these is a wavering of the mind; and, if the disease proceeds, this becomes every day more manifest. As the disease advances, the faculties do not, generally, show themselves in disorder by any extravagance of thought, but by fatiguing conversations on common affairs frequently repeated; and by broken discourses, caused evidently by confusion of intellect. In the further progress of the disease, the patient discovers great anxiety of mind about his affairs, appears ever desirous to be where business is, and makes great, repeated, and violent efforts to liberate himself from those about him, if under restraint, in order to accomplish the objects that press most forcibly on his mind. These exertions are, however, not made in opposition to others; though violent, with either malignity or ill-nature; nor does the patient mark his restraints with the appearance of much anger or displeasure. He seems to be forgetful of what has immediately passed, and only to be propelled to

action by those strong impressions on his mind respecting the objects just stated. In other respects he is tractable, and there is seldom any difficulty in administering medicine to him. In this situation he loses the sensation of pain; and when in a considerable degree of this delirium, knows momentarily those about him of his family and friends. *The tremors of the hands, which constantly accompany this complaint, are now great, with unceasing workings and elevations of the tendons at the wrists; to which are frequently associated subsultus tendinum, and often singultus.* By the action of the tendons at the wrist, the hands are drawn inwards, sometimes to such extent, joined to the constant tremors, as to allow a very imperfect knowledge of the pulse. When the patient is at all still, he is constantly picking the bed clothes, and in various motions with his hands. The evacuations are unconsciously rejected, in the height of the paroxysm. The pulse at this time becomes very rapid, and may appear to be more debilitated than it really is, from the difficulty of ascertaining its actual state. Accompanying the exertions at this time made, there is generally a most profuse sweat, which is commonly clammy and cold; with sometimes an offensive odor. The heat of the skin varies much, but is seldom intense; and the tongue is not often dry, or the patient thirsty. The general appearance of the countenance is dull, and the eye frequently suffused. The state of the bowels vary; but, during the violence of the disease, frequent stools are not common. In the height of the paroxysm, the patient is in an unremitting state of watchfulness, which continues until the disease is alleviated, or is succeeded by insensibility, which may partake of coma or apoplexy, ending in death.

This disease will continue, with great violence, from three days to a week, and with moderate symptoms for a longer time, and is sometimes seen in the form of a chronic affection.

The curative intention is to procure quiet and sleep; these being effected, the disease subsides. Opium, in large doses, two grains of the extract every two hours, and in
some

some instances every hour, was given with the happiest consequences.

In peritoneal inflammation, instead of the hot bath, hot fomentations, and the application of heat by various methods, Dr. Sutton employs COLD; and he relates many cases in which the abstraction of heat by the application of a cold lotion* to the abdominal parietes, was followed by the most decisive benefit.

We are disposed to consider these as instances of practical improvements, since the publication of our former Report, of great importance. The *modus operandi* of opium in *Delirium tremens*, Dr. Sutton does not explain; but the beneficial application of cold in *Peritonitis*, seems to have an obvious solution. In all topical inflammation there is an increase of temperature in the part, invariably occurring as a *sine qua non* of that morbid state. It is a self-evident proposition, that, by the abstraction of caloric, this increased temperature will be reduced, and one essential part of the diseased action, probably its most essential, removed.

In the employment of *caloric* and *frigoric* as articles of the *materia medica*, we have yet much to learn. As productive of diseased actions, these principles, substances, or qualities, are but little understood: and our conclusions respecting their *modus operandi*, in existing morbid effects, are often extremely illogical.

The expectations, formed on facts stated to have occurred in India, of the possibility of curing hydrophobia by excessive bleeding, are still kept alive. Since these facts have been given to the public, Dr. O'Donnel, of Uxbridge, has printed cases of this dreadful malady, which, like all others, we fear, of the specific disease, terminated fatally. This gentleman favors the opinion that copious and even excessive abstraction of blood affords the most probable means of resisting the effects of this formidable poison. One circumstance connected with the case of Joseph Watson, related by Dr. O'Donnel, (*Med. and Phys. Jour.* vol. xxix. p. 491) is entitled still fur-

* The lotion employed by Dr. Sutton was made with Mist. Camph. ʒiii. Liq. Ammon. Acet. ʒiij. Spir. Vin. Ten. ʒj.

ther to arrest attention, not only as an interesting fact in the history of this disease, but as tending to excite an essential precaution in the diseases which occur to dogs. The bitch by which Joseph Watson was bitten, never had the symptoms of *Rabies*, according to the apprehension of those who saw her; and yet her bite was followed by that disease in all the animals on which it was inflicted, showing very distinctly, that the virus may exist in an individual in all its virulent activity, without manifesting its characteristic features on that individual.

The *Memoires de Chirurgie Militaire* of M. Larrey, from the large scale of observation presented to their author in his various campaigns with the French armies, make a valuable addition to the surgical literature of this period. Almost every variety of disease and accident occurring to the soldier on actual service, receives illustration from the collections of this accomplished surgeon. The typhus of camps and hospitals, the effects of fatigue and privation; the consequences of exposure to great changes of temperature, are explained in the *Chirurgie Militaire* with minuteness and precision. The losses sustained in the French armies by the coldness of the Russian climate in the latter part of 1812, though upon a scale to excite and interest curiosity, had been before felt in the campaign in Poland. "Few soldiers of the advanced guard, after the battle of Eylau, escaped the effects of severe cold upon their toes, feet, nose, or eyes." There is a remarkable fact connected with this, and which will go far toward fixing the floating opinions at present existing, on the effects produced by heat after cold. Not a single man suffered from the frost during the time the mercury was at 20° and downwards to 0° of Fahrenheit; but as soon as the mercury rose above 32°, and a thaw began, many of the soldiers complained of violent pain and numbness in their extremities, and the parts assumed a deep red color. Those who exposed themselves to the fire fared the worst; those who rubbed the frost-bitten parts with snow, and brandy and water, escaped mortification. The opinion of M. Larrey that cold is only the predisposing cause of mortification, and that the sudden application of a high temperature

perature to the torpid parts, is essential to the production of inflammation and gangrene, is most likely true. Our readers will perceive that this extreme case covers a multitude of minor instances, where neither the cold nor the heat have been extreme, but where still disease has been produced.

The method employed by Mr. Adams, for the cure of Egyptian ophthalmia, and related at p. 302 of the preceding volume of this Journal, deserves the attention of the faculty, as being successful in arresting the progress of a disease so rapidly destructive of the organ of vision.

An instance of the detection of an extraordinary imposition, which took place in April last, deserves to be noticed in the record of passing events. *Ann Moore*, a woman residing at Tutbury in Staffordshire, assumed the property of living without food for the five or six past years. This she managed with such dexterity, that many worthy persons were so far imposed on as to place implicit confidence in her. In 1808 this woman submitted to an investigation of her case by a watch set over her for several days. The result of this was so favorable, that her assertion of absolute abstinence found general credence. In this state of public opinion, Dr. Henderson, of London, saw her in the autumn of 1812. The observations he made led him to the conclusion of her being an impostor; and his remarks, first printed in this Journal, and afterward in a separate pamphlet, were so pointed, as to compel her again to submit to be watched. The result was a full confession of her guilt. It does appear, however, that this woman, partly perhaps from habit, and partly from some altered state of the functions of the stomach, did possess the power of abstaining from food, both solid and fluid, for many days together; and in her last effort to continue her imposition, it is ascertained that she remained nine days and nights without any sort of nutriment. The annals of the medical art afford many instances of similar impositions; but few have had more publicity, been more generally believed, or more fully detected, than this of *Ann Moore*.

On the subject of medical science generally, a valuable volume by Dr. Thomas Young, under the title of "An Introduction

roduction to Medical Literature," has appeared since last January. This assumes, in a degree, the form of a Bibliotheca; contains numerous references to authors, under particular classes; but is principally occupied in supplying a more correct Nosology, founded on the principles of the *Philosophia Botanica* of Linnæus. The defects in Cullen's Nosology induced Dr. Young to undertake this laborious and difficult office; how far he has succeeded must be left to the profession to determine: but that he has brought together a highly useful body of reference, and has also enriched his work with several ingenious essays, will hardly be controverted. To form the accomplished professor and the able practitioner in a science so important, comprehensive, abstruse, and intricate, as that of medicine, requires not an attentive observation of *Nature* alone, but a full view of whatever has been discovered, invented, or illustrated, by preceding ages. With such difficulties in the path to medical knowledge, the guide presented to the English student by Dr. Young, deserves to be held in high estimation. It is not, however, by such aids, singly, that medical science can be brought to perfection; an union of minds, an accordance of exertions, a participation of powers, and a dismissal of disgraceful jealousies, are essential to the consummation of this great object.

June 1, 1813.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

ARSENIC has been long known to be a powerful agent in medical practice, but its employ has been accompanied with too much dread of its proving deleterious, to have allowed of its confident and adequate use. Its reputation for being efficacious in leprous, syphilitic, and other affections, as recorded by Swediaur,* and others, has

* Swediaur, on the internal Use of Arsenic, says, "Apud Hindous forma pilularum: Elephantiasis vera seu lepra nigra, aliæque cachexiæ; neura desparata; morbi syphilitici rebelles; morbi ab hydragyro producti; paralysis; febres intermittentes rebelles."

stood

stood on an authority too vague and equivocal to have gained it sufficient trial. It is to inveterate cases of disease that is owed the discovery of some of the most valuable remedies, as in those instances agents of extraordinary powers are resorted to as a last attempt to subdue untractable distempers. In these circumstances, the substance under consideration has been occasionally subjected to the test of experiment; and, if the result has been favorable to its salutary efficacy, it either has or ought to have been recorded as useful practical information. In this way arsenic has been lately employed, under my direction, in three most obstinate cases of herpetic affection.

In the first instance, the disease assumed a distinct eruptive form, having broad circumscribed inflamed bases, similar to the character of herpes, denominated *pemphigus*. Much pain attended the progress of these eruptions, some of which would imperfectly suppurate, burst, and discharge an ichorous fluid; others would remain comparatively indolent, putting on a livid hue, and gradually lose their inflamed and tensive hardness without maturing. After the lapse of a few weeks, a fresh eruption would succeed the former, and in this course the complaint had continued for several months at the time of my being consulted.

It never had occurred to me to see an instance of this affection but once before, which was in the Imperial Hospital at Vienna, where it was shown to medical spectators as an object of curiosity rather than of cure. It had indeed resisted every mode of treatment that had been instituted for its removal, and was at that time considered as an incurable disease. The recollection of this fact caused me to despair of deriving any aid from common agents, and induced me resolutely to try what an adequate use of arsenic would effect. The patient was accordingly directed to take ten drops of Fowler's solution of that substance three times a day. This was continued during about three months without any sensible inconvenience to the general health, and without much apparent amendment of the complaint. So little benefit, indeed, was thought to have been obtained from it, that it was at length discontinued. In the course of a few weeks after, however, the eruptions ceased to be renewed, and those that were on the surface became progressively less troublesome, until they totally subsided, leaving only the skin discolored under which they were situated. The patient was, of course, much gratified by the unexpected disappearance of the afflicting disease; but the interval from leaving off the medicine to the cessation of the complaint, having been some weeks, the relief was erroneously supposed

supposed to have arisen rather from the discontinuance than from the efficacy of the remedy. That this was not the case, the long duration and uniform continuance of the complaint for nearly twelve months, although assiduously treated by various medicines of reputed virtue, made it sufficiently evident; yet the truth of this opinion was rendered additionally clear by the analogous efficacy of the medicine in the subsequent case of herpetic affection.

In this instance, the affection was characterised by extensive blotches, scarcely elevated above the surface of the skin. These appearances had proceeded through the eruptive and drying stages, with a sense of burning heat in the former, and of intolerable itching in the latter, during a series of several years, in which time, no mode of remedy that either theory or practice could suggest had been untried, but all proved equally unavailing. The general health was not sensibly disordered, but the habit of the cutaneous disease seemed to be obstinately established. On my being consulted on a complaint that had existed so long, and had baffled the various means of relief that had been devised for its removal, it appeared to me that it was a suitable occasion for a full trial of the curative powers of arsenic: it was therefore directed, as in the former instance, in doses of ten drops three times a-day, and continued for about six weeks without any inconvenience to the general health, and without any manifest advantage to the cutaneous disease. It was now discontinued as a medicine not more efficacious than others that had been previously tried, and in utter despair of finding any remedy for so inveterate an ailment. Thus disappointed and discouraged, the disease was abandoned to its customary course, when, after a few weeks, it was observed that the blotches were less visible, and had lost much of their usual redness, heat, and itching. This welcome change afforded much gratification, which continued to be heightened by a progressive amendment, until the face became free from all fresh eruptions, and nothing more than a slightly discolored hue of the skin formerly affected remained of the disease. This amendment was not temporary; it continued, and soon evinced, by the natural aspect of the portions of skin that had been so long and so severely diseased, that the healthy state had been restored, and was likely to be permanently established.

The close analogy subsisting between these two cases, respecting the salutary influence of the agent not being shown until after its use had been discontinued for some time, evinces that a similar curative process had obtained in each. It is probable that the high stimulating and tonic effect

effect of the remedy whilst using, is such, as to prevent its beneficial operation from being observable; that, although the diseased action against which the medicine had been directed might be overcome, yet the arsenical excitement of the part would remain equally violent, and be mistook for an unaltered continuance of the original affection. If this be the fact, it suggests a very useful practical rule in the management of this powerful medicine, that of giving it for a limited period, and then suspending its use, if active irritation should still continue, with a view to ascertain to what source such morbid action be referable.

That the curative influence of arsenic may be thus disguised, is rendered additionally probable from a similar effect occasionally arising in the use of mercury. It has often occurred to me to see the most ill-conditioned sores in syphilitic cases, that had been subjected to excessive mercurial treatment, in which, very naturally, the farther the medicine was urged, the more phagedenic and eroding the ulcers became. In these circumstances, the suspension of the medicine alone is in general found to effect the desired change, by removing the only obstacle to healthy healing. The analogy does not stop here; it promises to be found an important pathological fact, resting on a physiological principle in animal life, that, although one action might be rendered so powerful as to overcome another, yet that the ascendant one will equally precede the resumption of the healthy state, if sustained by an unremitted application of its influence. When approved remedies have been long employed without producing the usual or desired effect, it would be advisable (especially in chronic affection of no great emergency) to suspend their use for some time, until any conceivable inordinate influence excited by them may cease, and an opportunity of recovering the healthy state be thus afforded to the native resources of the diseased parts.

Many of the severest diseases to which human nature is incident, find spontaneous cures in the natural exhaustion of that degree of vital energy which sustains their temporary existence. Of this class are the different kinds of febrile affections, inflammatory disorders, and indeed a considerable portion of those even that are referred to a vitiated state of healthy action, and are consequently deemed indispensable objects of medicinal treatment. But the duration of natural cures is too indefinite to be quite safe: the issue between the period in which they may be effected, and the destructive injury which might in that time be inflicted on the fundamental conditions even of vital action, is often too perilous to be risked. The best powers of art are therefore, on those

occasions, justly demanded to accelerate the termination of a state of disease that can admit of no long delay compatibly with life. Such states of disease often require the most powerful exertion of medicinal influence, an extent of efficiency indeed only to be measured by the limit of safety in the employ. Of this description is arsenic in the herpetic diseases recited. It was used under circumstances in which other powerful medicinal agents had no curative effect. It had been found to be a safe medicine, and the result proved that it ultimately subdued a state of morbid action which appeared to be beyond the reach of other modes of relief.

In a third instance, arsenic has also very lately supported its claim to curative efficacy in herpetic affections. This was a case of inflammatory eruptions confined to the hands, which would tumefy and proceed to maturation, accompanied with extreme pain; and after this diseased course had terminated, it would be renewed, running a similar career; and so it had gone on in many succeeding instances during several months. No mode of treatment was found to avail, until, by my advice, arsenic was freely taken. From ten to twenty drops of the solution before-mentioned were administered for upwards of three months, when the sores were imperfectly closed, assuming a scurfy appearance. An ointment composed of half a dram of arsenic finely levigated, and one ounce of hogs-lard, was ordered to be applied to the pustular surfaces; this sometimes occasioned acute pain, and at others, according to the substance of the intervening scale of scurf, it was borne without inconvenience. Visible amendment was produced in the course of a fortnight, but it was not until after four months that the prevailing disposition to a renewal of irritation was finally overcome; nor, as in the former cases, did the cutaneous redness and scurf disappear until some months after the discontinuance of the medicine. These lingering vestiges of disease at length, however, wholly subsided, and the patient has since (now a considerable period of time) remained perfectly free from the complaint. No injury arose to the general health during the long use of this medicine, which affords a conclusive proof of the safety with which a full and unsparing trial of its powers may be pursued.

In a fourth instance, arsenic has been employed under my observation, both internally and by friction,* to a vast extent,

* The mode of attempting to introduce arsenic into the system by friction was at that time novel, at least it was not then known to have been tried. The patient was disposed to adopt the expedient from

tent, during several months, with a view to overcome the supposed remains of syphilitic disease. The complaints of pain and swelling in different bones were sensibly mitigated by its influence, but not wholly subdued. Visceral disease appeared to be an obstacle to its more extended efficacy. It soon induced so much distress throughout the region of the liver as to render its farther use intolerable. This became an insuperable bar to a full trial of its powers. The patient, who is a medical practitioner, is firmly persuaded that it would accomplish his curative object if the state of the hepatic organ would permit its efficacy to be carried to the requisite extent.

Enough seems to be known of this powerful medicine to entitle it to high consideration in medical practice. Its *modus operandi* appears to be that of a most pervading stimulant, in which mode of acting it also produces a sensible tonic effect. Patients debilitated by the vexatious and harassing continuance of herpetic affections, have the tone of the system at large improved by arsenical influence. This may be regarded as a most valuable circumstance in its medicinal efficacy, as it is adapted to secure and render permanent any altered action that its salutary agency may produce. Its tonic power in obviating the recurrence of inter-mittent fever has been evinced, and it has been also affirmed to be exceedingly beneficial in sustaining and renovating the general strength in low remittent fever; but my own experience of it in that disease has induced me to consider it

from the circumstance of the stomach having been so nauseated by its internal use, that it could not be longer borne in that way with any degree of convenience. A tea-spoonful of the arsenical solution was triturated with an ounce of the saponaceous liniment, half of which was rubbed in on different parts of the body, more particularly on the arms and legs, twice a-day. The effect produced on the morbid sensation that prevailed, by those frictions, was precisely what resulted from the internal use of the medicine; but, after the friction had been continued about a fortnight, the salivary glands became affected much in the same manner as is usually occasioned by a protracted use of mercury. The friction was then suspended; and the inordinate excitement of the salivary glands ceased. The external employ of arsenic was thus pursued during at least six weeks, and appeared uniformly to produce similar, and indeed in the opinion of the patient more powerful effects than were found to arise from its internal exhibition. To know that this active remedy might be made effectually to reach the system by external application, is of practical value when its virtues may be indicated, and the state of the stomach be such as not to bear the direct impression which its peculiar medicinal influence is adapted to produce.

as hurtfully stimulant, yet it must be confessed that my occasions for trying it in that intention have been much too limited and equivocal to warrant a decided opinion on the subject.

To have it clearly ascertained that a most powerful agent has operated an effectual cure in a class of diseases usually very unyielding, and that it may be given freely with perfect safety, is practical knowledge of extensive application, and may, under skilful direction, be turned to incalculable benefit.

The preceding observations on the salutary efficacy of arsenic in herpetic diseases, were written upwards of two years since, and would have been then published but for continued opportunities that were presenting of extending the proof of its virtues to a degree that would leave no doubt of its remedial powers in the cases in which it had been employed. Since that period, an accession of experience has been obtained that warrants the utmost confidence in its curative powers.

It would be tedious to state in detail, as in the foregoing narrative, the particular cases in which it has succeeded; it is sufficient to affirm, that it has rarely failed to produce the desired effect, and that too in a way that has been unattended by any unpleasant occurrences, and with manifest advantage to the general health. Its medicinal action has been uniformly that of a powerful tonic, so much so, as in some instances to induce visceral excitement either on the brain, lungs, or liver, but not in a degree that did not speedily subside on discontinuing its use for a few days.

As before observed, its curative influence was not apparently shown, in many cases, until some weeks after its use had been relinquished; and in several instances in which the occurrence of visceral excitement became an impediment to its farther employ, the herpetic disease, for which it had been given, permanently subsided during the interval of its disuse, so as to render its farther administration unnecessary. It may be fairly a question, whether taking of arsenic for an indefinite length of time may not be productive of injury. The arsenical action that is induced may, by its tonic influence to a given extent, prove highly beneficial in the circumstances of systematic debility commonly existing in herpetic diseases; but when that influence is carried beyond the healthy limit of action, it may go to inflammatory excitement, and to the various mischief resulting from that morbid state: it therefore would at once be most safe, and apparently most conducive to the early and decided efficacy of the medicine, to give it during about a month, and then to intermit

intermit its use for an equal length of time, when it might be resumed if the disease should not in the interim have wholly disappeared, which has actually been the case in a large majority of instances under my observation.

It has not occurred to me to know that either any immediate or distant injury has resulted from the use of arsenic; and if it be given in doses from one to twenty drops three times a-day for about a month, and then discontinued, and resumed, if necessary, as before mentioned, no deleterious consequence will ever be likely to ensue from it. It has been freely taken under my direction from the early age of three months throughout the various intermediate periods to advanced life, and in no instance has it occasioned any inconvenience that would warrant imputing to it the character of being a dangerous remedy. That it is a very powerful medicine there can be no doubt, but its power is exerted in a way that would seem to be perfectly safe in every variety of temperament, and under all the different circumstances of herpetic affection in which it has been hitherto employed. A medicine sufficiently active to subdue herpetic disease, must be capable of extensive influence over various morbid conditions of life; and it is probable that the highly tonic and pervading operation of arsenic, will hereafter be found of vast importance in the cure of many of the most inveterate diseases incident to human nature. I am, &c.

Taunton, May 4, 1813.

ROBERT KINGLAKE.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

DURING a long and extensive course of practice in Midwifery, like other practitioners, I have been subject to very tedious and vexatious labours, occasioned by a spasmodic affection of the uterus, which I found very difficult to remove, and until removed true labour pains were suspended. This spasmodic obtrusion would sometimes continue many hours, and even days; the suffering women were worn down by fatigue, and after parturition they recovered very slowly. After being teased with these cases nearly forty years, a case of obstructed intestine from spasm came under my care, where no time was to be lost; life or death depended upon immediate and bold effort. The patient, a female, had been attended by a practitioner very little in the habit of prescribing medicines, about fifty hours. She brought up all the contents of the stomach and bowels above the stricture, no evacuation below could be procured, and

30 Dr. Spark on the Use of Opium in Spasm of the Uterus.

and gangrene was expected. I gave her six grains of solid opium, and half a drachm of pil. ex colocynth. cū al. the first to remove spasm, and the latter to empty the canal immediately afterwards, to prevent a return. On visiting her two hours after taking the pills, I found the opium was not in sufficient dose, and gave her two grains more: this relieved the obstruction, the colocynth pill immediately acted, and the patient recovered. It may be proper to remark in this case, that the first medical friend gave his medicines in a liquid form, which the irritable stomach rejected; I gave mine in a solid form, and they remained. From the happy termination of this case, it occurred to me, that if a large dose of opium was necessary to remove the spasm, it was equally so in other cases, though the cause was different. I began to give it cautiously, in doses of three, four, or five, grains, in spasmodic affections of the uterus, and with some advantage; no ill effect arising, I grew bolder, and gave it frequently in doses of six grains, sometimes eight, and in one case ten; the consequences have been most happy to my patients, and a great relief to myself; my general dose has been from six to eight grains, according to the degree of spasm. I have exhibited these doses in more than a hundred cases, without any particular inconvenience, except in a few instances the head has been slightly affected, similar to intoxication; in others the stomach, where the irritation did not reach it to occasion sickness, the opium did, but where the stomach was irritated to sickness, the opium removed it. These effects were of short duration, and bear no comparison to the benefits received: the spirits of the women are exhilarated, the uterus performs its functions with vigor, it gives way rapidly to the pressure of the child, the placenta never adheres, hemorrhages never follow, the uterus retains nothing, of course the patient is not afflicted with after-pains, and she recovers her strength and health more quickly than those who need not the aid of opium. Independent of the above advantages, I never saw milk or puerperal fever where opium had been given.

What I call spasmodic pains of the uterus, are those generally termed spurious, or cholic. The patients most subject to them are weakly, or what are said to be nervous. The general symptoms are a frequent desire to void urine in small quantities, the os uteri little dilated, and during pain instead of dilating it contracts, and the spirits of the women are depressed.

To the above remarks I will add a few cases:—

Mrs. B. a merchant's lady, found the effects of opium so
powerfully

powerfully in her third labour, as to induce her to send to me in the beginning of her fourth for the same medicine.

Mrs. R. a merchant's lady, suffered many hours with spurious pains. I wished her to take some pills of opium; she replied, that she never had taken a pill, and believed she could not swallow one. I then gave her sixty drops of laudanum, and waited two hours without its having any good effect; I prevailed on her to try and take two pills, which she swallowed with difficulty; they contained six grains of opium. In about half or three quarters of an hour, she said she was relieved; and had she known the effect the pills would have, she would have taken them instead of the drops. Her labour now went on quick.

Mrs. F. inclined to labour, but spurious pains suspended it. I gave her ten grains of opium, which removed the spasms, but pains did not follow. She appeared languid, from a larger dose of opium than was necessary. I thought some warm stimulus would relieve, and gave her a dish of tea; it was no sooner in the stomach than pains came on, and she was delivered in about ten minutes.

Mrs. L. with her first child suffered constant pains for forty-eight hours. She was attended by a female practitioner, whose education was of the best kind, and who was in constant expectation of delivery: both midwife and patient were worn out; the former wished to be relieved by another female practitioner, but Mrs. B., with whom she had lived as a servant, desired my attendance. I found her suffering with spurious pains, and the midwife informed me that she had been in exactly the same state for forty-eight hours. I endeavored to give an enema without effect; two hours were lost, and she remained the same: I then gave her six grains of opium, and told her she would find the pains alter in about half or three quarters of an hour. About that time she said, "the medicine is at work, and I do not mind these pains." Labour now went on well, and she was delivered within the hour and half from the time of taking the opium.

Mrs. C., in her three first labours, suffered from spurious pains about a week, and she was supposed to be in labour all the time. Her practitioner was not deficient in skill, but not in the habit of giving opium. She had heard of my success, and requested I would attend her in the fourth, which I did, and she had just such a tedious time as before. I would not give opium, because I wished to watch the case, to enable me to draw a fair conclusion from the same patient between opium omitted and opium given. In her fifth labour I was sent for to her and another woman at the same time;

both suffered from spasms; I gave to each six grains of opium; both were relieved, labour pains succeeded the spurious, and they were delivered within two hours.

Mrs. J., fifteen years of age, in labour of her first child, sent for me about five o'clock in the morning. The os uteri was not dilated, and the thickest I ever felt, her pains spurious. This case appeared to me to require a full dose of opium, and I gave her eight grains. At ten o'clock I was sent for again, the spasms were removed, the uterus giving way, and she was delivered at half past eleven. This case appeared to me likely to be very tedious.

Mrs. D., attended by a medical friend, between seven and eight months advanced in pregnancy, had been subject to uterine hemorrhage three weeks, and brought to that state as to make delivery necessary. I was requested to attend. The body of the placenta was immediately over the os uteri. I advised five grains of opium to be given immediately, and to deliver by turning the child an hour afterwards, when the uterus was under the influence of the opium, and would not resist. I attended again at that time; the hemorrhage was abated, I advised immediate delivery; her medical friend was timid, and requested me to act. I endeavored to separate the placenta from the uterus, but found difficulty in doing it. I then passed my hand through the body of the placenta near the funis up to the fundus uteri, took the feet, and delivered; the placenta was brought away soon, and the whole accomplished without the loss of more blood than is usual in common labours. Mrs. D. was well enough to sit up the third day and nurse her child; she recovered rapidly.

Uterine hemorrhages preceding abortion, which so frequently happen when women are advanced about three or five months in pregnancy, may be much relieved, if not totally removed, by a proper dose of opium, assisted by rest, and the horizontal position.

The practitioner ought to distinguish between the tedious cases arising from spasmodic affection of the uterus, and the laborious cases arising from rigid muscular fibre in strong young women, or those advanced in years, with first children. In the former, opium has the happiest effects; in the latter, I suppose, none. The tincture of opium has not the effect in any dose. I have selected the best crude opium in preference to the strained, which I thought affected the stomach more than the crude, from what cause I cannot account, unless the action of fire injured its quality.

The above remarks and cases were not intended for the public eye; I made no minutes of them at the time, and write from memory; they are published at the particular request

request of several very eminent medical gentlemen. I have no interest beyond the pleasure of being the cause of relief to the fair sex, and the anxious time saved to my professional brethren, having declined the practice several years, and become a member of an university. I have endeavored to be concise, only stating matters of fact; if I have not explained myself sufficiently, I shall be ready to give candid answers to any queries; and I hope when any practitioner has given this mode of relief a fair trial, he will give publicity to his observations.

I am, &c.

Ipswich.

WILLIAM SPARK, M.D.

For the Medical and Physical Journal.

To J. WALKER, M. D.

DEAR SIR,

I TAKE the liberty of sending you the inclosed case of Small-pox occurring after Vaccination, in a boy whom you vaccinated about nine years ago, in Salisbury-square. It may be necessary to state that the mother, who then lived at Brentford, never brought this child to you after the first day, he being then an infant in arms. His brothers and sisters, who were vaccinated about the same time, were regularly seen by you during the progress of the disease; and the mother assures me that in this patient the arm rose and went through the different stages as regularly as the others had done, and the cicatrix, although small, is now sufficiently visible. To this statement, however, I should have paid but little attention, (and the circumstance of his not having been seen by any medical man after the period of inoculation, made me consider it as a case of spurious or imperfect vaccination, and prevented my sending you earlier notice of it, or showing it to any other medical men,) but the speedy and favorable termination of the disease has now convinced me that the previous vaccination had assisted its beneficial effects on the constitution, and, although it had not entirely secured it from small-pox infection, had yet the power of arresting this disease at the moment when it had assumed the most formidable character, and rendering it harmless; and in this opinion I am happy to say that Mr. Andrews, a neighbouring practitioner, whom I this day requested to visit the subject of this communication, concurs with me. If you think the case is worthy of being laid before the public, as another proof of the prophylactic power of cow-pox, you

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are at full liberty to send it, together with any remarks of your own, to the Editors of the Medical and Physical Journal.

I remain, dear Sir,

Your obedient humble Servant,

Mortlake, May 2, 1813. RICHARD HENRY KING.

About three weeks or a month ago, a girl in the poor-house of the parish of Mortlake, who was supposed to have had the small-pox in her infancy, but concerning which I regret my not having been able to obtain any satisfactory particulars, sickened with that disease, and had it in a very favorable manner. As all the other inmates of the house had had either the small-pox or the cow-pox, I did not think it necessary to use any particular precautions in keeping this patient separate from them. On the 23d of April, however, Thomas Waite, aged about nine years, who had been vaccinated in Salisbury-square when six weeks old, was seized with rigor and shivering, followed by head-ache, pain in his back, and nausea. When I saw him, his pulse was very quick, and the tongue was covered with a brown fur. 24th. The fever had increased; he had passed a restless night, had been slightly delirious, and still complained of sickness at his stomach. It may be necessary to state, that he had taken an emetic the preceding evening, and a purgative medicine this morning, both of which had operated sufficiently. 25th. He had been delirious during the whole night, and his fever continued very high. In the course of this day an eruption appeared all over him, resembling measles. 26th. From the appearance of the eruption this morning, there was now little doubt of its being small-pox of the most unfavorable kind. He had again been delirious during the night, and the fever had not at all decreased, but the vomiting had now subsided. From this period till the 29th, the disease continued its progress, daily assuming a more unfavorable aspect. The eruption consisted of minute, but very numerous vesicles, which, on the face, already showed a disposition to run into each other. 30th. On this morning, being the sixth day of the eruption, the constitutional symptoms had undergone a most favorable change. The fever had abated, the boy had passed a quiet night, and he expressed some inclination for food, which he had not previously done. The appearance of the eruption, however, was still by no means flattering. The vesicles continued small and flat: in the interstices between them, the skin was pale and shrunk, and there was not the least tendency to swelling in the face and eyes. Still, however, the general appearances

appearances were such as led me to hope that the previous vaccination would exert a favorable influence, so as to arrest the further progress of this apparently alarming disease; and this opinion I did not hesitate to express to the attendants. May 1st. On this day my hopes were confirmed. Almost all the vesicles had dried up and turned brown in the course of the night; the boy had slept well, was perfectly free from fever, and his appetite for food had returned. From this time he continued to mend rapidly, and he is now (May 5th) as nearly well as possible. On his face there is now very little appearance of the eruption remaining. I have not thought it necessary to give a regular detail of the treatment of this case during the progress of the disease. At the commencement, his stomach and bowels were cleared, the antiphlogistic regimen was adhered to during the eruptive fever, and for the last three or four days he had taken bark and wine very freely. About the fourth day of the eruption he was attacked with diarrhœa, and voided several copious, dark-colored, and very offensive stools.

This boy has three or four brothers and sisters in the house, who were vaccinated at the same time with himself, and who, as well as all the other children, have hitherto escaped infection, unless, indeed, a slight indisposition of his elder brother, William Waite, can be attributed to this cause. The mistress brought this boy to me on the 1st of May. He had been drooping for a day or two, complained of pain in his head and back, and had vomited once or twice. His whole body was now covered with an efflorescence exactly resembling the first appearance of the eruption in his brother Thomas; but this entirely disappeared on the following day, and he has continued perfectly well ever since. What is remarkable in this case is, that the boy complained of a severe pain on the spot where the vaccine matter had been inserted, and said he had felt it during the whole of the day preceding that on which I first saw him; but this also ceased with the disappearance of the efflorescence.

From the girl who first had the small-pox, I was induced to inoculate a child whom I had previously vaccinated, but of whose security I had some doubts, owing to the vesicle being ruptured previous to the appearance of the areola. The arm inflamed and matured, but there was no constitutional affection.

May 6th.—Since writing the inclosed, I have been informed by the mistress of the house that Elizabeth Waite was affected in a similar manner with her brother William, about the time that Thomas Waite first began to complain. She

complained for a couple of days of languor and loss of appetite. On the third day a rash appeared all over her, continued for two days, and then disappeared. As her indisposition was extremely slight, it was unfortunately not mentioned to me.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

I BEG leave to present for insertion in your Journal the following case of Convulsions during Labor, which, by a prompt and decisive mode of treatment, terminated very satisfactorily.

April 21st, I was requested to attend the wife of W. B. of C—, near this place, who had been in labor several hours. On examination, I found the os uteri very little dilated and rigid, the membranes not ruptured, and the presentation natural. The woman appeared nearly desponding, on account of the circumstances attending a former labor, she having been delivered with the forceps. I represented the state of the labor to her, and left her, promising to see her again in a few hours. On my return, I found that she had been attacked with convulsions, about an hour before my arrival: her extremities were contracted and stiff, pulse nearly gone, breathing scarcely perceptible, and a peculiar wild appearance in her countenance. I immediately procured a strong mixture of brandy and water, and, with some difficulty, succeeded in getting her to swallow two tea cups: this gave her the most decided relief; she became rational, strong pains followed, and the child was expelled in less than an hour afterwards, in a natural manner. My patient has recovered very well.

I am, Gentlemen,

Your obedient Servant,

*Earl's Heaton, near Leeds,
May 27, 1813.*

H. HEMINGWAY,

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

I INTRODUCE the following case to you for insertion in your Journal, if you think it worthy such insertion. It appears to me especially instructive in one point of view, although a perfect restoration to health has not taken place, that of the advantages to be derived from the re-introduction of

of mercury into the system when the most distressing symptoms had occurred during the original use of that mineral, and had continued in the most painful way for about fourteen months. Isolated cases do not in general contribute to our experience, except they come in confirmation of the observations of others. For this, among other reasons, the case deserves attention, as strengthening the remarks and practical information of Sylvester*, Dobsou†, and Bardsley‡, on resuscitated Salivation.

I am, Gentlemen,

Bedford,
June 1, 1813.

Your very obedient Servant,
G. D. YEATS, M. D.

- *On the good Effects of resuscitated Salivation.*

March 2, 1812.—E. P. æt. 22, a female, complains of a tremulous sensation at the pit of the stomach about once or twice in twenty-four hours, attended by a fainting disposition, and cold perspiration in considerable quantity. Sometimes passes a day without such sensations. On these attacks she takes a little cold water, which, though immediately rejected, relieves the uneasy feel at the stomach. Is frequently troubled with a giddiness, heaviness, and pain in the head—complains also that nothing stays on her stomach; whatever is taken of any description causes a weight and tightness at the stomach, until thrown up again; and the rejected matter is always in a very acid state, and in much greater quantity than what is taken. Is never sick except something is taken into the stomach. Has no appetite but when she sees food that she fancies, such as bread-pudding, nauseating the idea of meat. She feels a disposition to eat, but in indulging the disposition, the above sensations of weight and tightness, with consequent vomiting, are instantly produced. When the ingesta are first thrown up, it is with scarcely any effort, but afterwards a good deal of struggle takes place with the retching, and much clear liquid, extremely acid, is vomited, with a little phlegm. Has very considerable thirst, with a sensation of heat at the scrobiculus cordis, which is allayed by half a pint of cold water, although it is immediately rejected. Once she took a little warm rum and water, which caused instantly great pain with a violent burning heat, aggravating all the uneasy sensations at the stomach, followed by profuse perspiration and vomiting as usual. Her agony was such that she appeared to her friends to be dying. Bowels costive; urine

* Med. Observ. and Inquiries, vol. iii. pp. 241-56.

† Ibid. pp. 174-9.

‡ Med. Reports.

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high-colored. She states her stools to be dark-colored. Pulse 76, feeble.

E. P. has been in this state of symptoms for about fourteen months, and they commenced under the following circumstances. She complained at that time (December 1810) of a great tightness all round the waist, with a swelling on the region of the stomach towards evening, to such an extent as to oblige her to unlace her clothes; dyspnœa; occasional pain about the stomach; appetite indifferent; no thirst; no vomiting, nor sickness of stomach; and no particular uneasiness after taking food. Previous to the accession of these symptoms, she had been gradually failing: her ankles had swelled about the preceding May, and she had felt languid. She says these complaints were brought on by living on a watery vegetable diet, to get rid of some pimples in her face, but, notwithstanding, she grew lusty. The swelled ankles and languid feel went off on a return to a more generous diet, and she remained well till about the period when the train of symptoms just described commenced. She began to be regular in her nineteenth year, and had always enjoyed perfect health, never having been ill except having had the small-pox in the fourth year of her age. She continued perfectly regular in her menstrual discharge till September 1810, when it ceased, and returned in the following January, and appeared twice till May, since which time it has never made its appearance.

In September, 1810, a physician was consulted. He ordered various remedies, which the nature of the symptoms indicated; but these not succeeding, she was put upon a course of mercury in the beginning of December following, both by friction and pills, which, in about three weeks, brought on a very considerable salivation, which lasted three weeks. On the commencement of the salivation, she felt a constant inclination to make water, with a bearing down pain and straining at stool, which continued in a greater or less degree for a month, but the tightness, &c. across the waist, abated. Two days after the commencement of the salivation, on taking some broth, she felt a squeamishness at the stomach, and the broth was immediately thrown up; and from that day to this, Monday, March 2d, 1812, she has invariably vomited instantly whatever solid or liquid food has been taken.*

* As some opening pills remained on her stomach, it occurred to Mr. Goodwin, her surgeon, to make trial of meat made into pills: they were given, but were speedily rejected. She was not informed of what the pills were composed.

On January 23d, 1812, I first saw E. P. at the desire of the professional gentleman who attended her. I then learnt that she had been, at different times, attended by physicians of the first eminence, who had most judiciously prescribed; and, however flattered I felt by an appeal to my humble exertions, I nevertheless entered with much diffidence upon the treatment of a case of such long duration, and which had been under such able management. Although there was every appearance of much organic mischief, yet it seemed probable that if the extraordinary morbid acidity existing in the digestive organs could be arrested, one source of irritation would be cut off, and some relief would thus be obtained. There was clearly a very diseased secretion impairing the chylopoietic functions, and thus giving to the nerves of the stomach that great sensibility and irritability by which all food was immediately rejected. From careful inquiry, it did not appear that this idea had been put in force: it was therefore agreed, after a consultation between her surgeon and myself, that we should make trial of this mode of proceeding. The following prescription was accordingly written:

R. Infus. Flor. Anthemid. ℥iss.

Pulv. Rad. Ipecac. gr. j.

Potassæ Subcarbonat. ℥j. M.*

This was given as an emetic, to be worked off with cold beef tea, and repeated every second morning. With the same intention of correcting acidity and allaying irritation, pills containing gr. ij. Extracti Conii and one of the Potassa Fusa was directed to be taken every six hours, and the obstinate costiveness which prevailed was obviated by the occasional exhibition of Gamboge and Extract. Colocynth. Comp. This plan was followed till the 15th of February, when being informed that the patient imagined it gave some relief to the uneasy sensations of her stomach, the ingesta not returning so very speedily as before, a large spoonful of Aqua Calcis was ordered occasionally, and a tea-spoonful of Magnesia to be added to each quantity of beef tea taken to work off the alkaline emetic, and the Potassa Fusa was increased to gr. ij. in each of the pills taken every six hours. This antacid treatment not only suggested itself from the very great acetous secretions into the stomach, but also from a singular case of severe vomiting with great acidity cured by magnesia, as published in the 3d volume of the Med. Obs. and Inquiries, by the late Dr. Watson. Whatever relief,

* Such was the condition of the stomach, that the draught would have produced vomiting without the Ipecac., which accounts for the smallness of the quantity of this root.

however, to the sensations of her stomach E. P. might have felt, it did not appear to me that any great advantage was obtained, although she took at times from two to three grains of the Potassa Fusa; and at one time, after taking the alkaline emetic, vomiting was constantly kept up with pure beef tea and magnesia for five hours: but notwithstanding this, the last vomiting was as acid as the first.

I think it appears very clearly from this, that the great acidity in the stomach did not arise from acetous fermentation in that organ, but was actually secreted; for there was no time for the acetous fermentation to take place, considering the continued vomiting for five hours almost without intermission.* In Dr. Watson's case, it is clear there was acetous fermentation from debility of the stomach, and consequent deficiency in the powers of the gastric juice. After vomiting for a time, the nutton broth was returned in the same state in which it was taken, and the patient was subsequently cured by bark and steel. I was then convinced that the alkaline treatment would be of no essential use, seeing that the acidity was owing to a morbid action in the chylopoietic organs, resulting most probably from morbid structure. This plan, therefore, which had been submitted to with the most patient resignation, was given up in despair: the case, nevertheless, still continued to occupy a good deal of my thoughts. In turning over in my mind the whole of the symptoms again and again, more particularly the circumstances under which the vomiting commenced, which was during a course of mercury, and two days after the salivation commenced, I began to suspect that that mineral was probably in some way connected with this long-continued and very distressing symptom. I had met with no analogous case in my own practice to guide me, but on looking over my commonplace-book, I found a reference to the Med. Obs. and Inquiries for some cases, the symptoms of which were very similar to those of E. P., and which had come on under the use of mercury. I therefore read these cases with some care, and therein discovered a very strong similarity in the origin, progress, and nature, of the symptoms of the case under my care. With this conviction on my mind, I formed the resolution of urging the propriety of again resorting to a mercurial course. I took the first opportunity of stating to my patient (who resides many miles from Bedford) the desire I had that she would again make use of mercury—she readily consented.

Several years ago, Dr. Bardsley, of Manchester, published a volume of Medical Reports, in which he stated some anomalous

* See Sir John Pringle's Experiments on Alimentary Fermentation.
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lous cases of disease arising during the use of mercury, which resisted every mode of treatment till mercury to salivation was again resorted to, when the diseases were cured. I immediately wrote to that physician, and pointed out to him the cases in the 3d and 6th vols. of the Medical Observations.* Reflecting on E. P.'s case, and recollecting the correspondence that had passed between Dr. Bardsley and myself, in reference to the cases published by Sir J. Silvester and Dr. Dobson, it occurred to me that the severity of E. P.'s present symptoms might have originated from a similar cause, viz. a deranged state of the functions of the chylopoietic organs, induced by some error during the mercurial course entered upon in 1810. After mature deliberation, the plan was immediately enforced, March 2, 1812, the mercurial ointment was ordered to be rubbed in twice a-day, and directions were given for strict confinement to bed, with other precautions, in order to prevent any injury that might possibly arise under the peculiar circumstances of the case from the use of this active mineral. In order to preserve the stomach in as much tranquillity as possible, it was agreed that nothing whatever should be given by the mouth, (except opening pills when necessary;†) and that to support the system nourishing glysters should be given. This part of the plan, however, was found to be impracticable, the glysters not remaining even with the addition of Tinct. Opii. Care too was taken that the glysters should be thrown up very quietly, to give the greater chance of their being retained by not distending the intestine too suddenly; and in the pills the simple extract of colocynth was directed, lest the aloes in the compound form might with the glyster-pipe irritate the anus too much. The mercurial ointment was used for six weeks, besides occasionally taking pills composed of Hydrarg. Submuriat. and Extract. Conii, and Hydrarg. c. creta, with Extract. Hyoscyami, when the mouth became sore.

About a week previous to the affection of the mouth, the following symptoms occurred:—She was seized about five in the morning with a most violent pain in her stomach and

* It is but justice to record the candid answer of Dr. Bardsley:—“I am no less struck than yourself with the coincidence between the cases you referred me to and those I have published. Such uniformity of success among different practitioners will serve to enhance the merit of the practice. I was led to adopt it from a preconceived notion, and not from authority.”

† B. Gambogiz, gr. iij. Rhæi, gr. xij. Potassæ Fusæ, gr. iv. Extract. Colocynth. gr. xij. Distribue ope syripi in pilulas xij—ii vel iij pro dosi.

bowels, which lasted three hours, when she took a cup of warm green tea, which was instantly rejected, accompanied with a good deal of glaucous matter, having the appearance in some parts of it of pus. A liquid stool soon followed, which contained the same kind of matter as that which was rejected by vomiting, in the opinion of her attending surgeon. For several days previous to this she was in considerable pain across the stomach, with a great sensation of weight, which was only relieved by large doses of opium. About five or six hours after this violent paroxysm, she took two table spoonsful of mutton broth, which to her unspeakable comfort did not come up; for this was the first food of any kind that had remained upon her stomach for fifteen months. Finding this quantity stay, it was repeated every two hours for three or four days, with similar good effects, and without any other food. From that time she has been able to retain food of any light kind, such as pudding, fish, sweetbread, &c. but these still create an uneasiness at the stomach, and meat is not relished.

On the 12th of April, two days after the cessation of the vomiting, I saw my patient. Whatever might be the exact state of the disease of the chylopoietic organs, there was no doubt that its diminution had been effected by the re-introduction of mercury into the system. Impressed with this idea, and believing that although the vomiting was checked, the *causa morbi* was not entirely subdued, and as the mouth was not as yet sore, I directed some more mercurial ointment might be used every night for another week.

On the 19th of April I again saw her, when the complete effects of the mercury were visible in the constitution. The stomach continued quiet, and she was able to take a mild nourishing diet, although she had no appetite for food, but felt an inclination for it when it was presented to her. A bitter draught* was now prescribed twice a-day; and, as the bowels were extremely torpid, a suspicious circumstance, a bolus of gr. xij Extract Colocynth. Comp. was taken with each draught, and which scarcely moved the bowels once daily. From this time to May 1st, she continued nearly in the same state, except that she began to perspire most profusely, with a fluctuating state of the ptialism, the mouth at times being free from soreness. The perspiration was so great as to make her feel faint, and to render it necessary to change her bed-linen twice in 24 hours, and the moisture dripped from them when they were wrung. She might be

* Pulv. Rad. Columb. 3j. Rasur. Quassiae, ʒj. Aquæ Bul-
lient, ʒviij. Macera per horas ij et cola.

Rx. Liquoris Colai, 3x. Spt. Myristicæ, 3j. M.

said

said to be constantly in a warm bath; she was still confined to her bed, from the fear lest any check being given to the mercurial action, before that mineral was eliminated out of the constitution, might reproduce the vomiting. The bowels were still very torpid. She now took (May 1st) a draught of an infusion of quassia and senna, with the diluted sulphuric acid thrice a-day.* With the use of these medicines the perspirations gradually subsided; but they continued very profuse for a long time, and the bowels were so obstinately costive, that very large doses of very active medicines were required to keep them moderately open; till at last she took, in the course of one day, at different times of it, ʒj Pulv. Scammon., gr. vj Gambogiæ, and gr. iv Potassæ Fusæ, and had only one evacuation, and that not loose. She was now able to come down stairs, to go about the house, and take occasionally an airing in a chaise, although she felt very weak. Her stomach retains the light food she takes, but she feels an uneasy sensation after any thing of an animal kind is taken. In this state I saw her again on the 19th of June, and as she complained of feeling very weak, and as her more immediate professional attendant, who watched her with much care, assiduity, and kindness, stated the very obstinate torpor of her bowels, resisting more than the usual purgations, she was ordered an infusion of the cinchona twice a-day, with some active pills.†

May 31, 1813.—I this day saw E. P.; she still continues to retain food of the farinaceous and vegetable kind on her stomach, which she relishes, as also fruit, puddings, and sometimes bread and cheese; but after eating a meal, she feels an uneasiness about the region of the stomach; eats no meat, disliking it; is thirsty; the tongue is clean during the day, but white in the morning; sleeps generally well; has at times transient sharp pains shooting to the back from the stomach; is at times sick, with some vomiting, but rarely; feels also at

* R. Rasur. Quassiz, ʒj. Cort. Angustur, Contus. ʒss. Folior. Sennæ, ʒij. Aquæ Bullient. ʒviij. Macera per horas iij et cola.

R. Liquoris Colati, ʒix. Spt. Myristicæ, ʒj. Acid. Sulph. Dil. gtt. x. M.

My late much-respected friend, Dr. Pitcairn, first suggested to me, many years ago, the utility of combining an aperient in a small dose with bitters, as they produce a better effect that way than alone. Experience has fully confirmed to me the truth of this observation.

† R. Pulv. Cinchonæ, ʒss. Aquæ Bullient. ʒviij. Stent per horas xij et cola.

R. Liquoris Colati, ʒvj. Lactis Amygdal. ʒiiij. M.

R. Extracti Elaterii, gr. vj. Gambogiæ, gr. xxiv. Extract. Colocynth. Comp. ʒj, distribue in pilulas xxiv—ij-ij vel iv, pro dosi horæ somni,

times a transient heat on the whole body; œdematous swellings of the lower extremities,* accompanied with erisipelatous patches of inflammation, sore to the touch, have supervened; urine varies much in quantity and color; bowels still very costive; recourse is had to the pills mentioned in the margin;† pulse about 90, weak; her stools vary in color and consistence, and are at times very offensive; she has gained strength and flesh, and the color of the skin is perfectly healthy; she is soon fatigued by exercise, and a hurried motion produces dyspnœa; always feels better when the stomach is empty, and the coldest liquids agree best; tea is her favorite beverage. Such is now the altered condition of her stomach, that gr. viij Ipecac. taken one day produced no vomiting, and on the following morning gr. j Antimon. Tart. added did not increase the emetic power of the Ipecac. but operated downwards.‡ Repeated the vomit a week ago, which operated a little, and brought up some fluid of a greenish color, but not acid. These vomits she took of her own accord, in consequence of feeling uneasy at the stomach. She now takes no medicine but opening pills. In May last the menses made their appearance, and returned at the interval of six weeks, but have since totally ceased. Such is the exact state of the patient at this time—a condition comparatively very comfortable to what it was previous to the re-introduction of mercury, and which allows of the exhibition of remedies for a more perfect recovery, however doubtful that may be.

The ink was scarcely dry from writing the communication which I have just closed to you, when your Journal for the present month came to hand, in which I find myself called upon to publish a case, in consequence, it would appear, of a paper on Ischuria, which you did me the favor to insert in your last Number; I must therefore trouble you again.

A poor woman of this town, (still alive, bed-ridden, and suffering greatly from painful disease,) had been afflicted for several years with very distressing complaints; during one period of the progress of which she declared, and this declaration is corroborated by her neighbours, that she vomited her urine. I never personally witnessed this symptom, but

* This symptom had occurred previous to the severity of her illness originally, but disappeared.

† R. Extracti Elaterii, ℥ss. Gambogiæ, ℥ij. Extract. Colocynth. Comp. ℥iss. distribue secundum artem in pilulas xxiv. This quantity in the dose of one or two pills is not very active.

‡ The reader will recollect, that in the first part of the case, gr. j Ipecac. produced full vomiting.

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have very frequently visited her both prior and subsequent to its occurrence. Several professional gentlemen of great respectability, with some of whom I am in the habit of very frequent communication, visited this person, and signed a declaration, which was delivered to me by one of the gentlemen, stating such a symptom to be utterly impossible. I was absent at the time of their meeting, which was a casual one, at a considerable distance from Bedford, on professional engagements. This broad and general assertion, both colloquial and in a written document, startled me, believing, as I do, that urinous vomiting has occurred in the human subject. I was thus induced to make a search into our best authors, and the result of this investigation has been a confirmation of my belief. I accordingly transmitted this result of my inquiries, instituted both from curiosity and a just respect for the opinions of my professional brethren, to your Journal, without referring to any case, under the hope, arising, I trust, from a proper professional spirit, of drawing the attention of your ingenious correspondents to the subject of urinous vomiting, that they might supply, if they thought proper, either from their experience, or reading, or both, their ideas on this symptom; *keeping in view the well-authenticated facts from the best authorities, both of ancient and modern date,* stated in the paper on Ischuria.* With respect to the patient herself, I credited the relation of those symptoms which I did not personally witness, from the extreme severity of affliction and sufferings which I and very many others had frequently witnessed; and I have as yet found no reason whatever to withdraw the credit I gave. But whatever belief may be withheld from the woman's report of her symptoms, it cannot affect the general question of urinous vomiting, which, in a physiological point of view, is principally interesting. The pledge, if it is to be considered such, for publication, was given in *private* conversation, in a similar way that a hint at publication is *publicly* thrown out in the preliminary observations to the paper in your last Number: and if it had not been so announced, however loosely, in either way, probably the case would at some period have been submitted to the public; but surely, whether pledged or not, it must be allowed to take place, to speak in the language of Alina Mater, *horâ locoque consuetis.*

I am, Gentlemen,

Your very obedient Servant,

Bedford, June 2, 1813.

G. D. YEATS, M.D.

* Of the latter, the case published by Dr. Senter, in the Transactions of the College of Physicians of Philadelphia, is particularly deserving of attention.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

I FEAR I was not sufficiently explicit in my communication in the 170th Number, page 302, of your valuable Journal, relative to the effects of the Antim. Tartar. in immediately arresting the progress of the purulent inflammation of the conjunctiva, commonly called the Egyptian Ophthalmia, as it appears by a paper from Mr. Fielding, of Hull, in your last Number, that my principle, as well as mode of administering that medicine, have been misunderstood by him. I stated that "constant sickness and vomiting" was kept up for eight or ten hours by repeated doses of Antim. Tartar. :—it would have been more correct if I had said that *violent sickness and vomiting were continued* during that period.

The diminishing the action of the heart and arteries by inducing nausea, is a practice which most professional men have pursued in lessening acute inflammation in various parts; it is not therefore surprising that it should have been tried in a disease where this character is so strongly marked as in the Egyptian Ophthalmia; but I know of *no one* who has recommended *violent vomiting* to be excited and continued in the manner I have described, although it is probable that vomiting may *accidentally* have been produced by small doses of the medicine, when given to *produce nausea*.*

The mode of exhibiting my remedy, and the principle on which it is supposed to act, differ so much from those described by Mr. Fielding, that they cannot with propriety be considered the same, or even as analogous. To *produce nausea*, a *quarter*, or at most the *third*, of a grain of the Antim. Tartar. is exhibited for a dose once in *three* or *four hours* to an adult; whereas in my practice I should direct *two grains* to be given at the first, and half that quantity to be repeated every *half hour* until *full vomiting* is produced, which is to be kept up for the stated time, by repeating the dose at longer intervals.

The effect of *nausea* is to lessen arterial action, consequently, during its existence, inflammation in any organ or viscus must be diminished; but I believe its further progress has been very rarely, if ever, *immediately arrested* by so gentle an operation of the medicine. The intentions I had in view in adopting the practice in question were, first, by

* This, however, would be no argument against the originality of my practice, as, had its efficacy been understood by any of those practitioners, they would not, I conceive, have failed systematically to adopt it, as I have done.

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the violent excitement of vomiting to produce a new action in the inflamed vessels, whereby the morbid action constituting the disease would probably be removed; secondly, by keeping up continued sickness and vomiting for so many hours, considerably to exhaust the animal and vital powers, whereby the circulation would become so languid as almost to amount to syncope, during the continuance of which it is impossible that inflammatory action can proceed. By having recourse to the remedy as early as possible before the disease could establish itself, it occurred to me, that not only would the morbid action be removed by inducing a different action, but by the long-continued sickness, and consequent exhaustion, all disposition to a recurrence of inflammatory action would be removed.* The event has most fully answered these expectations, as in no one instance in which I have known the remedy employed agreeably to the rules just laid down, has it failed of success.

After this explanation of the principle and effects of my practice, no candid person, I conceive, will blend it with that recommended by Mr. Fielding, whose liberality I feel assured would not have allowed him to claim priority in its adoption, had leisure permitted me to have been as explicit in my former paper on this subject as I have been at present.

The *nauseating practice* has indeed also been tried by different surgeons in the army, during the period the Egyptian Ophthalmia raged so extensively among the soldiery; and in a report drawn up by three professional gentlemen, appointed by his Royal Highness the Commander in Chief, to inquire into the probable efficacy of my practice, if introduced into the medical practice of the army, they also intimate the two modes of treatment to be similar, although I explained to them, at the conference I had with them on this subject, the important difference both in their intention and effect.

I have the honor to be, Gentlemen,

Your very obedient humble Servant,

WILLIAM ADAMS,

Oculist Extraordinary to his Royal Highness the Prince Regent, and Oculist in Ordinary to their Royal Highnesses the Dukes of Kent and Sussex.

Albemarle-street, June 13, 1813.

* An additional reason for exhibiting the Antim. Tart. as immediately after the accession of Ophthalmia as possible, is, that ulceration of the cornea frequently ensues within twelve hours, (which, by a typographical error in my former paper on this subject was stated twelve days,) when vomiting would be highly injurious.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

THE Preamble to the "Act for exempting Apothecaries from certain Offices, &c." Anno 6-7 Will. III. runs thus: "Whereas the art of the Apothecary is of great and general use and benefit, by reason of their constant and necessary assistance to his Majesty's subjects, *which should oblige them solely to attend the duties of their profession*; yet, by reason that they are compelled to serve several parish, ward, and leet offices, in the places where they live, and are frequently summoned to serve on juries and inquests, which take up great part of their time, they cannot perform the trusts reposed in them as they ought, nor attend the sick with such diligence as they ought, &c."

I would beg to ask your learned correspondent, Censorinus, whether it is a just and legitimate deduction from the manner in which the words "assistance," "attend," "duties," "profession," are used in the above extract, to conclude that the Apothecary's attendance upon the sick was to be somewhat like that of the nurse, or whether they do not imply that he was to prescribe for them? If your correspondent's opinion respecting the Apothecaries be correct, they are, I apprehend, one and all liable to a penalty of 5*l.* per month for practising; but if they are by the above act allowed to exercise their "profession," then have they as much a right to prescribe for patients as the physicians have.

The disputes at present subsisting between physicians and apothecaries, have caused me to turn over some old tracts upon the same subject: from one of these I find that the apothecaries had very little employment as prescribers of medicine till the time of the great plague in 1666, when the physicians taking the alarm, *honestly and disinterestedly* ran away, but the *apothecaries* kept their proper posts,* and as far as they were able assisted the sufferings of their fellow-creatures; after which they rose into estimation, and from that time to this have either legally or illegally practised.

In another pamphlet I found the following paragraph, which I have been induced to extract for the amusement of your readers: "After all it must be owned that there is something very peculiar in the œconomy of an Apothecary, and his brain is very much influenced by the weather. On a calm fair day he is very ignorant and stupid; but in the night, and when it rains, he is a man of common sense, and

* See Merrett's Short View of Frauds and Abuses, &c; &c. 1669.
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a competent judge of diseases. This may be proved from the general acknowledgment of physicians themselves, who do not pretend to prescribe to a patient before they know his disease; and he who does not understand a distemper himself, can never give an exact relation of it to another. Now, if a physician's skill be required in the night, or on a rainy day, and he sends for the apothecary, orders him to visit the patient and bring him an account of the case, and then prescribes for the sick person remedies without seeing him himself, this is an acknowledgment of the apothecary's judgment; for it would be barbarous to say of any physician, that he preferred his own ease to his patient's safety."—*Pharmacopola justificati, or Apothecaries vindicated from the Imputation of Ignorance.* 1756.

June 10, 1813.

A. A. Y.

To the Editors of the Medical and Physical Journal.

"Dedi cor meum ut scirem prudentiam atque doctrinam erroneasque et stultitiam; et agnovi quod in his esset labor et afflictio spiritus."—*Eccl.*

GENTLEMEN,

IT is amusing to see the various ways by which practitioners in medicine endeavor to procure themselves notoriety. It is, also, a pleasing rather than a hurtful vanity to their brethren, for it enables them to discriminate characters divested of obsequiousness, grimace, and professional humbug, and as it were to dissect them by the blaze of their own productions.

The trick of writing a book on a disease to be cured by medicine to be found in any modern pharmacopœia, is now proved to be very stale and unprofitable; nay often injurious to ill-founded reputation, as appears by many living examples: therefore it was necessary, to succeed, to discover something new and strange.

Ever since Dr. Buxton's visit to Germany, and falling in love with one of their stoves, we have had little books and little essays, on winter cough, regulated temperature, and German stoves.

Dr. Buxton procured a room, in some lane at Horsley-down, (I presume for the benefit of carbonic acid gas also) about the dimensions of 15 feet by 15, and heated by a German stove, which projected 5½ feet into the room. The temperature required was 65°, from which it seldom varied considerably. Into this room he introduced several patients suffering from catarrh, &c. in order to put his opinion to

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the test of experiment concerning the benefits to be derived from a regulated temperature.

The first case, Osborn, a young man, aged 21, had, on the 2d of January, been ill six weeks from catarrh, owing to exposure to wet, and coughed frequently, and expectorated freely, without any pain of chest. Had continued to work, but felt weak.

“ He began to take antimonial wine thrice a-day, and, on the 6th, had a blister applied to the sternum, and dressed with savine ointment, and tincture of squills added to the antimonial wine.—On the 8th was still better, and permitted to walk out, during which it rained, and he got triflingly wet! Complaints much aggravated.—10th. Blister repeated, with savine ointment and ant. wine.—12th. Better in every respect.—15th. Blistered part continues to discharge.—17th. Rather better.—18th. Blister scarcely draws. Spermaceti ointment.—19th. The same. Antimonial wine and tincture of squills. Blister and savine ointment.—22d. Some aggravation of symptoms since last report; are now abated. Blister does not discharge much.—24th. On the whole rather better.—27. Some aggravation of symptoms, since last report, are now abated.—29th. Nearly the same.—30th. Osborn *says* that his cough is now very much better than when he was admitted, particularly during the day: expectoration and breathing also considerably relieved, but not to so great a degree as either of the other symptoms. He is not so well as he was about twelve days ago, but is not at all worse than he has been for some days past.”—Discharged.

The result of the first case, so far from proving the advantage of regulated temperature, appears directly the opposite, and, I may venture to add, was highly injurious to the patient, as shall be proved.

What can be judged from a history wherein the state of the tongue, of the appetite, of the bowels, of the skin, of the pulse, is never mentioned, nor during the whole disease, excepting that once the pulse was said to be *now* rather quick! And what is not less deserving of censure, the medicine given is mentioned without any dose being specified. Now, though Dr. B.'s practice, in that respect, may be known at the London Hospital, it cannot even be guessed at by those who do not belong to that institution. The names of the remedies mentioned might be, and are, employed in very different doses, according to the intention of the prescriber, and with very different results.

Another omission, of no small importance, is the diet which was permitted in this conservatory, the regulation of which, probably,

probably, did no less towards the cure than even the regulated temperature. But I deny that any cure was performed, or even the slightest benefit produced.

To say nothing of the impropriety of permitting a man, who had been cooped up in a room at 65° during six days in January, even to walk out, was not his getting wet relinquishing all principle in treating the disease? and who knows that the man did not aggravate the evils by drinking something to keep the *wet* from his stomach!

Twice during his confinement did Osborn suffer from an increase of the symptoms without any evident cause. But is Dr. B. ignorant that in pulmonic disease, even where the lungs are irremediably diseased, the cessation and aggravation of cough, &c. in the same room, confined to the same bed, and with a temperature not less accurately kept, and *without any evident cause*, is one of the most familiar occurrences to be met with?

Three blisters, and those kept discharging, with the use of antimonial wine, and tincture of squills, judiciously managed, are remedies of no small power; yet here, because as Lord Bacon says "Not idols of the den," they are accounted nothing. I have no doubt, that, upon a similar principle, had Radford, of Cheapside, sold the patient a fleecy hosiery *night-cap*, he would have attributed, and with no less impropriety, all the benefit to his night-cap, which Dr. Buxton does to his regulated temperature.

But how lamentable, that, after four weeks, the report of the 30th should prove that Osborn was little relieved, and not so well as he had been twelve days before, in which state he was discharged! Yet here we are requested to admire the benefit arising from regulated temperature and German stoves!

I shall now prove, that, instead of an advantage, he derived a positive injury from the treatment.

A tradesman (in a business, I believe, liable to great variations of temperature) is taken, in the month of January, and shut up for four weeks, at nearly one temperature, during which he is principally trusted to the benefit proposed to result therefrom; though, at the same time, using some remedies of considerable efficacy. On the 1st of February he is not cured, indeed scarcely better in any way, yet he is then discharged to meet with all the variations of temperature he had formerly suffered, and doubly aggravated by being infinitely more liable to feel their bad effects; and now sufficient to render permanent what was before remediable!

diable! therefore he may justly be said to have suffered considerable injury from the plan of treatment.

It may be added, too, that whether this was a summer or a winter cough, an autumn or a spring one, it was evidently not accompanied by any alarming symptoms. Now experience teaches, and from no small share of practice, even amongst the lower orders, and with all the excesses and improprieties of their ignorance and unrestrained conduct during treatment, that no instance of cough, so trifling, has ever been half so little benefited in the same space of time, though it might reasonably be doubted that some of the medicine was not taken.

The treatment, undoubtedly, was very different from the trifling here enumerated, but how much better for the individual who could receive double benefit, without quitting the bosom of his family for a temporary jail, or being rendered doubly susceptible of disease!

The remaining eight cases were so nearly similar, that I shall not occupy time, or the Journal, in detailing them, but only notice some particular differences in their history and treatment.

Case 2d.—Is a better described case, and a more severe one. Treatment antimonial wine and blisters, with an aloetic pill for a few nights. Was a patient above five weeks. The 14th and 16th of February reports are occasional pains between the shoulders; chest pains him a little; fits of dyspnoea just as a week ago; expectoration deep colored, but not red, and trifling in quantity; pain in left side of the head; small of back very weak; cough farther diminished. 19th. Was not within! 20th. Discharged!

A patient, under the benefit of regulated temperature, suffered to be out, on the 19th of February, in our climate.

The word discharged, on the following day, having no accompaniment, we must conclude he received no further advantage than last reported.

Case 3d.—Richard Hughes, aged 20, ill eight months, had been under Dr. B.'s care since September, was admitted January 20th. "Coughs much; breath very short; raises much mucus, which he expectorates easily; perspires both in the day and night; is very weak; tongue clean; bowels regular. Antimonial wine, perpetual blisters, and sulphuric acid. At the end of four weeks, wheezing nearly as before; breath still better; strength further increased; does not perspire so much. Discharged."

It would be a bold assertion to say that he was materially better, on reading the whole case, for although some symptoms

toms had abated, the lungs still remained oppressed; and it would be still bolder to assert that the medicines had no share in producing the trifling advantage.

Case 4th.—“John Corney, aged 17, ill six months. Is delicate and narrow chested; cough; wheezing; occasional vomiting from coughing; expectoration moderate. Is weak, emaciated, and pulse quick! Been a patient since September, since which his complaints have been better, but is now weaker, and thinner.” Has used laxatives, antimony, squills, perpetual blisters, and sulph. acid. “Repeat the sulph. acid and perpetual blister, and laxative pill occasionally.” After several aggravations and remissions of symptoms, at the end of the month the report was, “Coughed much yesterday and last night, very little to-day; expectoration last night increased, but not this morning; throat not at all stopped; appetite nearly as it was. Discharged.”

From some of the reports, it is to be presumed he went out weaker than on his entrance, and certainly not more advanced towards a cure!

Case 5th.—“George Bell, aged 55, ill four months, but for ten years had been asthmatic during winter, but in summer quite free from disease.

“Em. Ol. Ant.”

What that is we are unable even to guess, and being unwilling to attribute the brevity of the prescription to ignorance or conceit, beg Dr. B. will explain his hieroglyphics, and the dose.

On the fourth day the report says “mouth feels sore since yesterday,” which occasioned us to look again at the Em. Ol. Ant. to see if this soreness could be produced by the medicine, as no clue is given to discover its cause. If I was disappointed in that, I was again puzzled at the new prescription it had occasioned, which seems even to have startled the Editor.

Aq. Ment. pip. ʒi, ter die.

“No one,” says Dr. Buxton, “can possibly conceive that these articles were of material consequence to his relief.” As a proof of the propriety of this remark, his mouth on the 14th was only “nearly well;” on the 20th he was discharged by his own desire, with giddiness in his head, &c. and with his breathing only affected in the evening. Is this a wonderful alleviation in asthma, though his temperature had remained unchanged?

Case 6th.—William Tonks, aged 61, ill three months; asthmatic. In summer is very well! Was ill six weeks last winter!—February 17th. A perpetual blister, and Em. Ol. Ant.

Ant. 17th. Another blister. Liq. Ant. Tart. P. coloc. i. o. n.—March 5th. So ill in the night that he required to be visited by the apothecary, who ordered his bowels, which were confined, to be opened, and so relieved him. Another blister.—9th. Another blister.—19th. Another blister.—21st. Discharged; *says he* is better in every respect; had been in five weeks.

The 7th, 8th, and 9th cases present nearly similar, though on the whole less favorable, results; and the practice was distinguished by its usual conciseness.

The hint, that two persons to whom this room was recommended, and refused its benefits, are since dead, and that some of those whose cases have been detailed, might, probably, not now have been alive! is rather too abstruse a calculation to establish such data upon. It would be more instructive to know that all these cases were cured, and alive, and healthy, on the 1st of June, than to hear conjectures of what might and what might not be.

After the failure of the cow-house scheme, and others of a similar nature, we are sorry to see a regular-bred physician imitating the Grahams, and Solomons, and Brodums of the day, by inventing the paltry name of winter cough, to alarm the credulous, to confide in his *peculiar practice* of curing it,

A cough may proceed from various causes, none of which are peculiar to winter or summer; and it is a doctrine, not discovered by Dr. B. but as old as Hippocrates, that variations of temperature are hurtful, and to be avoided in all pulmonic diseases; though it was reserved for Dr. Buxton to attempt to *cure them* by so doing. But even this doctrine is controverted by great experience, and not delusive but real success. Sydenham's cure for consumption was riding on horseback, and Dr. Rush mentions, in his essays, where fatigue, constant exposure to vicissitudes, &c. cured several hopeless cases. It would be well that such plans were again resorted to, instead of the enervating, consuming, and miserable one of sitting by a German stove with all the horrors of a jail.

We would also recommend Dr. B. to revise his medicinal plan of treating catarrhal and consumptive diseases, as some better acquaintance with remedies more appropriate than antimonial wine and tincture of squills may be acquired, and with a success which will far outstrip all the pretended virtues of a cruel and comfortless confinement, which can only perpetuate the ravages of the disease.

That such may be the effects of our remarks is the sole intention of our venturing to make them, and with a wish
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to deter others from so fruitless and inefficacious a remedy as a warm room and a tea spoonful of mint water three times a-day, while a vulture lies within devouring them!

I am, Gentlemen,

London,
June 4, 1813.

Your obedient Servant,

A PRACTICAL PHYSICIAN.*

COLLECTANEA MEDICA,

CONSISTING OF

ANECDOTES, FACTS, EXTRACTS, ILLUSTRATIONS,
QUERIES, SUGGESTIONS, &c.

RELATING TO THE

History or the Art of Medicine, and the Auxiliary Sciences.

Analysis of the Cerebral Matter of Man, and some other Animals. By M. VAUQUELIN.

SECT. I.—*History of the chemical labors hitherto undertaken on the cerebral matter.*

ALTHOUGH the brain, in consequence of the functions which it is supposed to perform, ought to have early excited the curiosity of chemists, yet one is surprised to find but very little in their works concerning its chemical nature. Even the small number of experiments which have been undertaken, have not been pushed far enough to enable us to deduce any positive consequences. Hence the opinions formed respecting the composition of the brain are erroneous, or at least incomplete. It was therefore necessary to resume the subject from the commencement, and to employ that care and precision which the difficulty of the subject rendered necessary. I have undertaken this difficult task. I submit the results which I have obtained to the chemists. It is their province to judge how far I have succeeded.

Gurman first announced the long period during which the brain remains sound in the cranium of dead bodies.

Burhus compared this organ to an oil, and particularly to spermaceti.

Thouret, whose loss Medicine laments, in an excellent memoir on the dead bodies found in the burying-ground of the Innocents, considered the substance of the brain as a sort of soap.

* The author of this paper will observe that we have omitted some passages which he might think witty, but which, in our opinion, were more sarcastic than is consistent with professional courtesy, especially when directed by an anonymous writer against the practice of a physician of established reputation.—EDITORS.

Fourcroy,

Fourcroy, whom the Sciences likewise deplore, advanced an opinion respecting the nature of the cerebral matter different from that of Thouret.* He considered it as principally composed of albumen and of another matter, which he thought a peculiar substance. Though the experiments of Fourcroy leave several things imperfect, yet it will be seen, by comparing them with mine, that his account of the brain is by far the completest hitherto given, and that it approaches pretty closely to the truth.

SECT. II.—*Treatment of the brain with alcohol, or spirit of wine.*

A portion of human brain, deprived of its envelopes, and reduced to a homogeneous pulp in a marble mortar by means of a wooden pestle, was mixed with about five times its weight of alcohol of 36 degrees. This mixture, left to macerate during 24 hours, was heated to the boiling temperature, and passed through the filter.

The alcohol had acquired a greenish color. It deposited on cooling, a white matter, partly in flocks, and partly in plates.

Twelve hours after the cooling, the alcohol was filtered again. It still retained its green color. Water destroyed its transparency, and rendered it milky.

This alcohol, being evaporated till only one-eighth part of it remained, deposited, on cooling, an oily matter, yellowish and fluid, which sunk to the bottom of the vessel. The liquid itself continued yellowish.

We shall hereafter examine this oily matter, together with the liquor which accompanied it.

The alcohol obtained by distillation was poured upon the cerebral matter, already once digested with alcohol, as has been already said.

After having boiled the mixture for a quarter of an hour, the alcohol was filtered while hot. It passed through the filter with a color approaching to blue, and deposited, on cooling, a white matter, as in the first operation, but less abundant. The alcohol, after having deposited this matter, still became milky when mixed with water. This alcohol, when distilled, passed without color; and the residue of the distillation, which amounted to about the 28th part of the liquid subjected to distillation, had lost its green color, and acquired a yellow color.

This residue exhibited two sorts of liquors: one of which had the aspect of an oil, and occupied the bottom of the vessel; the other, less colored, resembled a solution of gum.

We defer the examination of these two liquids till we come to describe those which were obtained by the first operation, because we suspect them to be of the same nature.

The white matter deposited by alcohol in the first operation, and that which the same liquid allowed to deposit in the second operation, had a pasty consistence, a greasy and glutinous feel, a brilliant and satiny appearance.

* *Annales de Chimie*, vol. xvi.

The last portion was whiter and more solid; but being melted, it was changed, like the first, upon being brought near the flame of a candle.

These substances, when dried upon filtering paper, rendered it transparent, and stained it as an oil would have done.

The matter, which had been retained in solution by the alcohol, and which had been separated by the distillation of this liquid, had a yellow color, and was of the consistence of a paste, and adhesive. When dried, it dissolved again in boiling alcohol; but before entering into combination with the liquid, it melted at the bottom of the vessel, and assumed the appearance of an oil. The alcoholic solution deposites, on cooling, two matters, which probably differ from each other in the aspect only: the one, which precipitates first, attaches itself to the sides of the vessel under the form of a yellow, thick, tenaceous fat; the other remains suspended in the liquor, under the form of scales, white and brilliant, like boracic acid.

SECT. III.—*Desiccation of the brain.*

Nine ounces, one gros (about 292 grammes, or 4312 grains troy, or very nearly three quarters of a troy pound), of cerebral matter, when dried over the water-bath, were reduced to two ounces, or nearly to a fifth part of their original weight; but the desiccation was not complete. These two ounces of matter, burnt in a platinum crucible, decrepitated and melted, and produced a smoke, which had the odor of an empyreumatic oil. This oil, in burning, gave a yellowish white and very large flame, and deposited a great deal of lamp-black. Then the odor of the empyreumatic oil became imperceptible. As soon as the flame ceased, the crucible was withdrawn from the fire. The charcoal which it contained weighed $5\frac{1}{8}$ grammes (1 gros, 25 grains; or 78.7 grains troy). It was reduced to powder, and exposed again to heat in a platinum crucible. Though exposed to a violent heat, it did not appear to burn; but softened, assuming a pasty form.

After having been exposed for an hour to a white heat, its weight was still 4.68 grammes ($72\frac{1}{4}$ grains troy); so that it had only lost 38 hundred parts of a gramme, which demonstrates a very difficult combustion in this charcoal.

Being washed with boiling water, and dried, it now weighed only 2.36 grammes (36.5 grains troy). Hence it had lost 2.32 grammes.

The solution strongly reddened the tincture of litmus; and the precipitate which lime-water formed in it was re-dissolved, till the excess of acid was saturated.

The same charcoal, exposed to heat a second time, burnt with a slight flame of phosphorus; but after a certain interval it softened as before, and assumed the form of a paste. It was washed a second time, and the water became acid, as before. These processes were repeated in the same manner till the whole of the charcoal was consumed.

The water employed in washing the charcoal being evaporated, yielded a white deposite, with a tint of blue, and a pasty consistence.

This deposit, being separated from the liquor by the filter, melted very readily into a transparent glass. The same deposit reduced to powder, and mixed with diluted sulphuric acid, furnished sulphate of lime, but in a quantity which did not correspond with that of the matter employed.

Ammonia being mixed with a small portion of the liquid from which the above-mentioned deposit had been separated, occasioned only a very slight precipitation. Caustic potash, on the contrary, occasioned a very plentiful one. This last precipitate was chiefly magnesia, while the deposit formed spontaneously in the liquor was phosphate of lime.

As every thing seemed to show that the acidity of the liquor mentioned above was due to phosphoric acid, lime-water was mixed with it till no farther precipitation took place. This last precipitate being washed, was dissolved in muriatic acid, and the lime precipitated from it by means of oxalate of ammonia. The liquor of this last experiment was treated with caustic potash; but no precipitate took place while it remained cold. A boiling heat being employed, a flocky precipitate was obtained, which possessed the properties of magnesia.

The liquor precipitated by lime-water, as mentioned above, was evaporated in an open vessel, that the excess of lime might fall down. After filtration this liquid had a yellowish color, a caustic taste, and precipitated abundantly muriate of platinum yellow. This liquor, when concentrated, was left in the open air, that it might crystallize, and that it might be seen whether it contained soda; but all the experiments to which it was subjected demonstrated that it was only potash partly saturated with carbonic acid.

These experiments on the combustion of the brain prove that the salts contained in that organ are phosphates of lime, of magnesia, and of potash.

The matter of the brain, after having been repeatedly boiled in alcohol, being burnt in a platinum crucible, exhibited almost the same phenomena as the brain in its natural state; that is to say, it decrepitated and flamed, but emitted less smoke; and its charcoal being calcined, did not soften, and gave no signs of acidity. This proves that the constituents which produced this effect in the entire brain were removed by the alcohol. We shall see hereafter what these constituents are.

SECT. IV.—*Examination of the fatty matter of the brain which is deposited during the cooling of the alcohol in which brain has been boiled.*

We have already described the principal physical characters of this substance: we have said that it was white and solid, but soft, and of a pitchy consistence; that it had a brilliant and satin-like aspect; and that it stained paper in the same manner as oils do. We shall now examine its chemical nature and composition.

1. When exposed to heat it melts, but it does not become so fluid as tallow does, and assumes a brown color at a temperature at which common fat is not altered.

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2. It dissolves in hot alcohol, leaving only a few flocks of animal matter, which had been dissolved in the first operation by means of the water contained in the brain. During the cooling of the alcohol the greatest part of this matter precipitates with all its usual characters: 20 parts of alcohol at 36 degrees are sufficient to dissolve one part of this matter.

3. When exposed to the sun this matter acquires a yellow color, nearly similar to that of the fatty matter which is obtained by the evaporation of the alcohol, after it has deposited the fatty matter, the properties of which we are describing. I do not know the reason of this phenomenon.

4. A portion of this matter, which had been dissolved several times in alcohol to separate the last remains of the animal matter which it contained, was burnt in a platinum crucible. The combustion took place very readily, and was accompanied by a great deal of flame and smoke. The charry residue washed with distilled water communicated to that fluid a very distinct acidity, and the property of precipitating lime-water.

The singular result of this operation, which announced unambiguously the presence of phosphoric acid, made me suspect that this fatty matter contained phosphoric acid, or phosphate of ammonia, the base of which might have been volatilized by heat, though this last opinion was not very probable. However, to determine the point, I made the following experiments:—

1. I mixed the fatty matter with distilled water, and observed with surprise that it formed with that fluid a kind of emulsion, and did not separate from it. At the same time, I observed that this emulsion possessed no acid properties, and did not alter the color of tincture of litmus.

2. I mixed it with a solution of caustic potash, and perceived no indication of the presence of ammonia. Even a boiling heat did not develop the smallest trace of this alkali. In this experiment I was very much surprised to perceive, that though I had employed a quantity of potash more than sufficient to dissolve a quantity of tallow, more than I employed, yet the solution did not take place; and the mixture remained as milky as if water had been employed instead of potash.

I think we may conclude from these experiments that the fatty matter from the brain contained neither phosphoric acid nor phosphate of ammonia, and that the acid which appears after the combustion had another origin.

3. A hundred parts of the fatty matter of the brain were heated in a platinum crucible, with 200 parts of potash and a little water. The mixture did not melt; but, on the contrary, became harder, which would not have happened if the substance in question had been real tallow. When the humidity was dissipated it assumed a brown color, took fire, emitted an odor of burning grease, and gave out a great deal of smoke. The residue of this operation was washed with distilled water; the liquid being saturated with nitric acid, and boiled, gave, when mixed with lime-water, a flocky precipitate, which

was phosphate of lime, and which weighed, when dry, the tenth part of the mass employed.

4. A hundred parts of the same matter thrown successively into melted nitre took fire with great facility, producing scarcely any smoke; the whole was destroyed, and not the smallest trace of charry matter remained. The residue of this operation, treated in the same manner as the preceding, gave the same quantity of phosphate of lime.

What conclusion can be drawn from these experiments, except that there is phosphorus combined with the fatty matter of the brain, and which dissolved in alcohol at the same time with the fatty matter? We find in the residue after combustion neither phosphate of lime nor phosphate of magnesia. The alkaline phosphates would have found enough of water in the brain to remain in solution in the alcohol, and not to precipitate when the liquid cools. Accordingly we find phosphate of potash, superphosphate of lime and of magnesia, in the residue of the alcohol evaporated, which had been digested with the cerebral matter. We must therefore admit the existence of phosphorus in the brain, as well as in the roes of fishes, where it was discovered by Fourcroy and me. The proportion of it, indeed, is very small; for, from the quantity of phosphate of lime which I obtained in the preceding experiments, I estimate its quantity not to exceed $\frac{1}{100}$ th of a part: but if we subtract the humidity of the brain, and only consider the dry residuum, in that case the phosphorus may be considered as amounting to about $\frac{1}{100}$ th part of the whole.

Though the substance whose properties have been described in this section has more analogy with tallow and fat than with any other class of bodies, yet it ought not to be confounded with ordinary fat. It differs from it principally by its solubility in alcohol, its capacity of crystallizing, its viscosity, its inferior fusibility, and the black color which it assumes in melting. Thus, though we class it among fatty bodies, we ought to consider it as a particular and new species.

SECT. V.—Of the fatty matter of the brain which remains in solution in the alcohol after its cooling.

We have observed before, that after the alcohol digested with the brain had deposited its fatty matter, it remained of a green color; and that the third, the fourth, and even the fifth, portion of alcohol, which had been digested on the same portion of brain, had a sapphire-blue color. In order to discover the coloring matter, we distilled this alcohol. The following are the observations that we made:—

The green and blue color is not destroyed by the evaporation of the alcohol, as long as any of the alcohol remains; but as soon as the whole is driven off, the matter acquires a yellow color, of more or less intensity. Neither the alkalies nor acids change these colors.

When these operations are performed on the first and second portions of alcohol which have been digested on the same quantity of brain,

brain, we see, as has been mentioned above, an oily fluid of a yellow color precipitate itself to the bottom of the aqueous fluid derived from the humidity of the brain. But this effect does not take place with the last portions of alcohol, because they contain no more water.

The liquid, at the bottom of which this fatty matter collects, has likewise a yellow color, a taste of the juice of meat, and slightly sweetish, and it gives marks of acidity. While this liquor is hot, the matter remains quite distinct, and seems to have some consistence; but by cooling, or on the addition of a little water, it absorbs humidity, becomes opaque, and so mixed with the water that it cannot be separated. We must therefore take advantage of the favorable moment to make this separation in the proper manner.

From these remarks it is obvious that hot water must be employed to wash this substance, and to free it from the soluble matters with which it is mixed.

To dry this oil after washing it, we may expose it for some time to the open air, or to a gentle heat.

Let us examine the properties of this matter thus purified, leaving to another section the examination of the water from which it has been separated.

1. It has a reddish brown color, an odor similar to that of the brain itself, but stronger. Hence it is probably this substance which gives its peculiar odor to the brain.

2. Its taste is similar to that of rancid fat.

3. When agitated with cold water it mixes with that liquid, and forms a sort of homogeneous emulsion, which separates only very slowly. The mineral acids, mixed in a certain quantity with this emulsion, immediately precipitate an oily matter, under the form of white opaque flocks; and the liquor then passes clear through the filter, which was not the case before. The muriatic acid which has thus served to coagulate this species of emulsion, lets fall very light white flocks, when mixed with ammonia; but when nitric acid is employed, it neither can be made to precipitate by ammonia nor lime-water.

The infusion of nutgalls likewise coagulates this emulsion.

4. If the water be decanted off as soon as the fatty matter is deposited, and it be left to itself, it putrifies, and exhales a fetid odor, indicating the presence of an animal matter.

5. It dissolves in hot alcohol, some light flocks excepted, which do not amount to the hundredth part of it. The greatest part of it separates from the alcohol when it cools, and renders it milky, as would happen to a solution of resin.

6. Exposed on burning coals it melts, blackens, swells up, and emits an odor of burning animal matter, and afterwards that of grease in the state of vapor.

7. When burnt in a platinum crucible, either alone or mixed with potash or nitrate of potash, it always furnishes phosphoric acid, either uncombined or combined with the alkali, according to the process; just as happens to the fatty matter deposited from the alcohol during its

its cooling. Hence we must form the same opinion respecting the origin of this acid. We must admit the presence of phosphorus in the fatty matter.

From 400 grammes of brain employed in this process we have obtained about 3 grammes of this matter, which amounts to about 0.75 of a gramme per cent.

We ought now to inquire in what this substance differs from that which falls spontaneously from the alcohol during its cooling, the properties of which have been already described.

Though it remains in solution in the cold alcohol, it is not very soluble in that liquid; for when alcohol, at a boiling temperature, is saturated with it, a portion is deposited, as the alcohol cools, in the form of flocks. In this respect it approaches very near the first substance. It differs from it by its reddish brown color, by its smaller consistence, by its slight taste of boiled meat which the first substance has not, and by a greater tendency to crystallization.

This difference is produced by a certain quantity of animal matter, of which we shall speak hereafter, and which may be separated from the fatty matter by means of cold alcohol.

SECT. VI.—Of the yellow aqueous liquor which remains after the separation of the two fatty substances, by cooling and by evaporating the alcohol.

When one has deprived the brain, by means of alcohol, of every thing soluble in that liquid, and separated, by the methods above described, the two fatty substances from the alcohol, there remains a liquor of a brownish yellow color, which has the taste of the juice of meat with a little sweetness. This liquid reddens litmus; and is precipitated by lime-water, infusion of nutgalls, &c.

To learn the nature of the substances contained in that liquid, we in the first place diluted it with a quantity of distilled water, and then poured into it lime-water as long as any precipitate continued to fall. The matter washed and dried in the open air had a yellow color. When calcined it assumed a black color, owing to the presence of a little animal matter, which is decomposed by the heat.

This substance thus calcined and re-dissolved in nitric acid was again precipitated white by ammonia. It was not blackened by exposure to heat, and possessed the characters of phosphate of lime.

After having precipitated, by means of lime, the phosphoric acid contained in the aqueous liquid, we evaporated it to dryness with the requisite precautions. The matter which it furnished weighed 4.5 grammes (69.5 grains troy). In this state it had a reddish brown color, was semi-transparent, had a taste similar to the juice of meat with a little sweetness; it dissolved in alcohol with great facility, leaving only some atoms of a saline matter which effervesced with acids.

Exposed to the air it became soft by attracting humidity. A portion of this matter being heated in a platinum crucible, swelled up considerably, and emitted vapors which had the odor of burning animal matter. It left a charcoal, which yielded, when washed with

with water and the liquid was evaporated, a little pure carbonate of potash.

It follows, evidently, from these experiments, that the aqueous liquid contained uncombined phosphoric acid and phosphate of potash, or perhaps superphosphate of potash and an animal matter, which by its solubility in alcohol and water, by its property of being precipitated by infusion of nutgalls, by its reddish brown color, its deliquescence, its taste and smell of the juice of meat, ought to be regarded as identical with the substance which Rouelle formerly called the saponaceous extract of meat, and to which M. Thenard has given the name of *osmazome*.

It is, without doubt, this substance, a portion of which remains with the fatty matter obtained from the alcohol by evaporation, which gives it the reddish color, the property of mixing with water, and of emitting the smell of animal matter when burning.

SECT. VII.—Statement of the constituents of the brain soluble in alcohol.

We now know the different substances separated from the brain by alcohol when repeatedly digested upon it. They are,

1. A fatty matter, white, solid, of a satin lustre, and a tenacity not to be found in ordinary tallow or fat.
2. Another fatty matter of a red color, having less consistence than the preceding, but which seems to differ from it only in consequence of a little *osmazome* which remains mixed with it.
3. An animal matter of a reddish brown color, soluble in water and alcohol, forming with tannin an insoluble combination, having the smell and taste of the juice of meat, and which is certainly the principle at present distinguished by the name of *osmazome*.
4. Superphosphate of potash, together with some traces of common salt, of which I have not spoken, because it occurs in all the animal humors.

SECT. VIII.—Examination of the part of the brain which is insoluble in alcohol.

When we have separated, by repeated digestions in boiling alcohol, every part of the brain soluble in that liquid, there remains a greyish white matter in the form of flocks, which has the appearance of fresh cheese, but differs from that substance by its chemical properties: 400 grammes of fresh brain furnished 31 grammes of this substance.

This substance, in drying, assumes a grey color, a semitransparence, and a fracture similar to that of gum arabic.

Put into water in that state, it absorbs a portion of it, becomes opaque, swells up, and softens. The water dissolves a small portion of it, for it becomes putrid after an interval of some days.

Thus softened, it dissolves readily by the assistance of heat in caustic potash, and during the solution no ammonia is disengaged, as is the case with the curdy portion of milk when dissolved in the same manner.

The

The solution of this substance in potash is slightly brown; its smell is not strong, the acids precipitate it in the form of white flocks, and disengage a very fetid odor. When acetate of lead is dropped into the solution, a dark brown precipitate falls, showing obviously the presence of sulphur.

Five grammes (77·2 grains troy) of this matter cautiously distilled, furnished carbonate of ammonia in crystals, and a red oil having a smell similar to that of albumen decomposed in the same manner. There remained in the retort 1 gramme (15·4 grains troy) of charcoal, which required 5 grammes of nitre to be entirely burnt.

The solution of salt obtained from it left 5 centigrammes (0·77 of a grain troy) of earthy residue, which was phosphate of lime. The liquid being supersaturated by nitric acid, and subjected to ebullition, let fall no precipitate; but it yielded a copious one when mixed with lime-water. This shows that the phosphate of magnesia had been decomposed by the potash, and perhaps even a portion of the phosphate of lime.

This matter, heated alone in a crucible, decrepitates, swells, and melts like albumen. Its charcoal, though calcined for a long time, does not become acid like that of the fatty matter; which shows that it contains no phosphorus. This charcoal, being washed with muriatic acid, furnished a small quantity of phosphate of lime and phosphate of magnesia.

When thrown into melted nitre it burns rapidly, and with flame; and we find, in the alkali resulting from that operation, very sensible traces of sulphuric acid, though the saltpetre employed contained none of it. This proves that the matter of the brain which is insoluble in alcohol contains sulphur; and confirms what was indicated by the acetate of lead dropped into the alkaline solution of this substance.

The properties which the portion of the brain insoluble in alcohol has presented, leave no doubt that it is perfectly identical with albumen. The knowledge of this circumstance explains very well the coagulation of the brain mixed with water by heat, acids, metallic salts, &c. This was the opinion which Fourcroy had formed of this substance in his memoir on the subject published in the *Annales de Chimie*.

SECT. IX.—*General Result.*

The mass of the brain, then, is composed of the following substances:—

1. Two fatty matters, which are probably identical.
2. Albumen.
3. Osmazome.
4. Different salts; and among others, phosphates of potash, lime, and magnesia; and a little common salt.
5. Phosphorus.
6. Sulphur.

I conceive, as far as it is possible to draw conclusions from experiments

periments so delicate, that these substances exist in the brain in the following proportions :—

1. Water	80·00
2. White fatty matter	4·53
3. Reddish fatty matter	0·70
4. Albumen	7·00
5. Osmazome	1·12
6. Phosphorus	1·50
7. Acids, salts, and sulphur	5·15
	100·00

SECT. X.—*Putrefaction of the cerebral matter.*

A portion of brain being diluted with a certain quantity of water, and abandoned to itself during a month, presented the following phenomena. At first it separated into three parts. That portion which occupied the surface was a part of the matter of the brain elevated by air bubbles attached to it. The portion in the middle was a yellow colored liquid, which, after an interval of some days, assumed a fine red color, which it retained for more than twenty days. After that period, this color by degrees faded, and was succeeded by a yellow color, more intense than that which the liquid had formerly possessed. The third portion, occupying the bottom of the vessel, was another part of the matter of the brain. During the month that it was allowed to remain, it emitted no gaseous matter.

The vessel containing this mixture being left open, there issued out of it an invisible vapor, having a disagreeable smell, somewhat similar to that of putrid cheese. Some persons compared it to the odor of the intestines when beginning to decompose.

A paper dipped in the solution of acetate of lead being exposed to this vapor, assumed immediately a blackish brown color.

The liquid in which the brain had thus putrified was sensibly alkaline; at least it restored the color of litmus paper reddened by acids, and formed white vapors when oxymuriatic acid was brought into its neighbourhood.

The liquid separated by filtration from the matter of the brain had an amber color. Acids rendered it muddy, throwing down white flocks. The odor which it exhaled in these circumstances was more fetid and disagreeable than before. Oxymuriatic acid rendered it muddy, likewise; but at the same time entirely destroyed its odor.

After being filtered, the liquor was subjected to distillation. As soon as it was heated nearly to the boiling temperature, yellow flocks separated in abundance, as happens when a diluted solution of albumen is treated in the same manner.

The product of the distillation was without color. Its odor was perfectly similar to that of the liquid before distillation. It precipitated acetate of lead white, and restored the color of litmus red-

dened by an acid. Oxymuriatic acid destroyed its odor, and made it assume a yellow color.

When the liquor remaining in the retort was reduced to about a fifth part, it was filtered. Its color was yellow, and its odor similar to that of old cheese. It had become acid, for it reddened the color of litmus paper. Infusion of nutgalls, lime-water, and alcohol, formed flocky precipitates in it. Ammonia also occasioned a granular and semitransparent precipitate, which resembled ammoniaco-phosphate of magnesia. Concentrated sulphuric acid being mixed with this liquid developed a strong smell of vinegar.

The solid matter of the brain which had undergone fermentation, being washed with water, and submitted to the action of alcohol, communicated to it a bluish green color, as if the brain had undergone no alteration. This alcohol, on cooling, deposited a white matter, partly in flocks, partly in crystals. There remained a greyish substance, which the alcohol had not dissolved, and which resembled albumen.

From these experiments we may conclude,

1. That the fatty portion of the brain had undergone no sensible change during the putrefaction of this organ. It preserved the property when dissolved in alcohol to give it a green color, and to precipitate, on cooling, in a crystalline form, and retaining all its properties.

2. That a part only of the albumen was destroyed by the fermentation; that from this decomposition a small quantity of ammonia resulted which dissolved another portion of the albumen, and some acetic acid rendered sensible by the addition of sulphuric acid.

3. That the osmazome was not decomposed, at least completely, since its presence was still recognised in the concentrated liquid.

We conceive that the albumen of the brain putrifies much more speedily, and undergoes a more complete alteration, when it is in contact with the air than when it is confined in a close vessel.

I do not know what the substance is which assumes a red color during the putrefaction of the brain. I thought at first that it was the substance which gives a green color to alcohol; but I gave up that opinion when I saw that the cerebral matter still communicated the same color to alcohol after its putrefaction.

The cerebellum of man, and the brain of herbivorous animals, being examined in the same manner, and with the same precautions, yielded the same results. I propose to continue these researches on the brain of other classes of animals.

SECT. XI.—Of the medulla elongata, and spinal marrow.

The medulla elongata and spinal marrow are of the same nature as the brain; but they contain much more fatty matter, and less albumen, osmazome, and water. Hence the reason why the spinal marrow has greater consistence than the brain.

The spinal marrow communicates to alcohol, when boiled in it, a blue color, as the brain does. It contains, likewise, superphosphate
of

of potash. The portion insoluble in alcohol is of the same nature as that of the brain; that is to say, albumen. The fatty matter contains phosphorus, like that of the brain.

Of the nerves.

The nerves are likewise of the same nature as the brain; but they contain much less fatty matter, and green coloring matter, and much more albumen. They contain, besides, common fat, which separates from them when treated with boiling alcohol, and deposits itself at the bottom of that liquid.

The nerves, deprived as much as possible of their fatty matter by means of alcohol, become semitransparent. Treated for a long time in that state with boiling water, they do not dissolve; but become white, opaque, and swell up, obviously in consequence of absorbing moisture. The water in which they were boiled holds in solution a small quantity of matter; for the infusion of nutgalls forms a precipitate in it, and the solution properly evaporated yields a little jelly, derived, probably, from the cellular texture which binds the nervous fibres together.

After having been treated with alcohol and with water, the nerve dissolves almost completely in caustic potash. Only a few flocks remain, not amounting to the hundredth part of the mass employed. No ammonia is produced during the solution.

The solution of nerve in alkali is precipitated by acids, and the precipitate, as well as the liquid from which it fell, assumes a purple color.

Nerve preserved in water undergoes little alteration. The water, however, after a few days, assumes the odor of semen very sensibly.

Nerve put into oxymuriatic acid contracts its dimensions. As it is chiefly the envelope of the nerves which undergoes this change, the nervous substance issues from its case, and each of the fibres which compose it separates from those in its neighbourhood; so that the nerve looks like a hair-pencil with its extremities diverging. In this situation the substance of the nerve assumes more consistence and whiteness, owing to the condensation and opacity which it requires. From this experiment, it would seem that oxymuriatic acid would furnish a good instrument for facilitating the study of the nerves and their envelope.

Is it possible, from the experiments to which the brain has been subjected, to determine the state in which each of the elements composing this organ exists in it? Is not the albumen united to a portion of phosphoric acid, and is not its consistence and opacity owing to this combination? Without affirming any thing on this head, I will say, that this substance appears to have acquired its state of semicoagulation from an acid; just as happens to the curdy part of sour milk; and that this coagulation is produced entirely by a fermentation, which commences, like that of milk, by being acid.

I next proposed to myself this question: Is the fatty matter in combination with the albumen and the osmazome? This seems to

be the case, at least with regard to the fatty matter and albumen ; for when the matter of brain is triturated with water, and converted into a species of emulsion, if it be left at rest the albumen and fatty matter separate together, and the osmazome remains in solution in the liquid, together with a small portion of the albumen. At the same time, I acknowledge that it is possible that these two substances are only in the state of mixture, and that the albumen here performs the same office to the fatty matter that mucilage* does to the oils of emulsive seeds.—*Annales de Chimie*, vol. lxxx. p. 82.

CRITICAL ANALYSIS

OF RECENT PUBLICATIONS

IN THE

DIFFERENT BRANCHES OF PHYSIC, SURGERY, AND
MEDICAL PHILOSOPHY.

Edinburgh Medical and Surgical Journal, No. XXXIII.

- I. *Case of Congenital Cataract ; with some Observations on the Means of Artificially Dilating the Pupil in the Operations of Extracting and Depressing the Cataract.* By JOHN HENRY WISHART, Surgeon.

THIS case of congenital cataract differs so little from many others which have, lately been laid before the public, that it will be useless to repeat it: serving, however, as the motive for giving a short historical account of the employment of certain narcotic vegetables for dilating the pupil, it is entitled to our consideration.

The accidental acquirement of the fact of the *Atropa Belladonna*, when applied to or near the eye, causing a temporary dilatation of the pupil, interesting and valuable as it is, remained long without any useful practical appropriation. The account given by Ray, (*Hist. Plant. L. xiii. c. 23, p. 680*) and copied by Van Swieten into his Commentaries on the Aphorisms of Boerhaave, (*Aphor. 1060*) and even the observations of Galen, (*Method. Medend. lib. iii. cap. 11, tom. x. p. 58. Charter*) that opium, mandrake, and henbane, produce the same effect, excited no attention beyond the simple fact; nor was this property, diffused, probably, among a large family of plants, turned to any account, until a gentleman who was preparing the extract of the *Belladonna*

* I call mucilage, with all the chemists, the substance which holds the oil in suspension in the emulsion of almonds, though it be of a very different nature from gum.

for

for Reimarus at Hamburgh, chanced to apply the juice of the recent herb to his eye. The effect produced continued three weeks, and the circumstances of it are related by Reimarus.

“ Quod attinet ad oculum tuum, olim, inter conscindendam *Atropæ Belladonnæ* herbam, ita affectum, ut per aliquod tempus fere visu privaretur, probe memini. Deprehendi nempe iridem ejus oculi adeo resolutam et patentem, ut fere dimidiæ tantum lineæ latitudo ambitus superesset, ampla vero choroideæ nigrities transpareret. Jam, cum effectum similem ab ore assumpta *Belladonnæ* observari nossem, non dubitavi, quod ipse tu quoque suspicatus fueras, externe applicatum venenum idem efficere posse et ab insperso inter parandum succo paralyzin illam ortam, quam tamen duraturam haud esse speravi. Interius jam acetum quoddam concentratum assumpseras, in cujus usu pergendum esse ratus sum: suasi tantum, ut simul ad irritandos nervos exterius volatilis oleosi spiritus vapores oculo ægro admitterentur. Sive igitur sponte, seu his adjuvantibus medicamentis, factum est, ut sensim et visus oculo et contractio pupillæ redirent. Ego vero mecum reputans, istam *Belladonnæ* vim haud spernendo in chirurgia usui esse posse cogito. Nempe cum in excidenda lente crystallina, sicut pelluciditatem amiserit, haud leve impedimentum objiciat irritatio et contractio nimia pupillæ, adeo ut sæpe iris per educendam lentem laceretur; quidni succo *Belladonnæ*, paralyzin illi innocuum per aliquod tempus inducimus? nec solum extractio lentis inde longe facilior obtineretur, sed et simul illud incommodi, ne oculus repentino lucis sensu læderetur.”

In a former number we noticed this discovery, and the claim Reimarus and Grasmeyer have for bringing it into notice. That other vegetable narcotics possessed this property was a reasonable inference *à priori*, and experience has shown this to be the fact. Mr. Wishart has collected the substance of what is known on the continent respecting the employment of the hyoscyamus as an application to the eye. Professor Himly, of Gottingen, (*Ophthalmologische Beobachtungen und Untersuchungen. Bremen, 1801*) after the application of a solution of the extract of hyoscyamus, found the eye exactly in the same state as in a case of complete amaurosis: the iris was motionless, and so far drawn back that it formed a ring scarcely a line in breadth, with its inner edge turned a little backward, so that its anterior surface was concave toward the central point; the pigmentum nigrum, at the bottom of the eye, had not its usual black color, but was greyish. Oleum cajeputi rubbed on the eyebrow restored the contractile power of the iris. A dram of the extract of hyoscyamus, in an ounce of water, is the proportion employed by Prof. Himly: of this solution a few drops are put into the eye, and kept there a short time by bending the head backwards. It occasions no pain, and no perceptible

perceptible redness. The paralysis of the pupil comes on in an hour, and continues five or six hours: its action is so local that the iris only is affected, the retina never suffering. It will be obvious, from this fact, that the effect produced on the eye by the hyoscyamus does not exactly resemble anæstrosis; but is an operation, *sui generis*, on the iris alone, and that its influence does not extend to the optic nerve or its expansion at the bottom of the eye. From this property in the hyoscyamus, Professor Himly deduces the following conclusions:

1st, It affords a certain test whether the cataract adheres to the iris.

2dly, It assists in the diagnosis of the capsular, lenticular, fluid, and firm cataract. It will also assist in determining whether, in those cases of cataract in which the patient sees colored points and bodies, that circumstance arises from a defect in the retina, or from some peculiar state of the lens. If this state of vision arises from some peculiarity in the opaque lens, then will the dilatation of the pupil diminish it; but if from a disease of the retina, by the transmission of a greater number of rays, this morbid symptom will be increased. This is a practical fact of considerable importance, as decisive, frequently, of the propriety of undertaking the operation for cataract.

3dly, In cases of common cataract it may prove a palliative, by inducing a state of the iris more favorable for the transmission of rays of light to the retina.

4thly, It procures vision in many cases of opacity of the cornea situated immediately before the pupil, by the simple dilatation of the iris beyond the verge of the opacity. It may be a question, however, if the constant or even frequent use of this narcotic as a palliative in this case and in section 3d, may be admissible, on the possibility of its producing permanent paralysis of the iris, and even of the retina.

5thly and 6thly, The professor points out the advantages to be derived from the hyoscyamus in the various operations for cataract; not merely as affording the means of ascertaining the condition and degree of morbid change, but as an auxiliary during the operation.

"In many cases the application of the hyoscyamus facilitates the operation for cataract; when, for instance, even after a sufficiently large incision, the cataract does not pass out, from the pupil being too much contracted, and remaining so, though the eye be left at perfect rest. In this case, however, he recommends the precaution of not operating during the greatest dilatation of the pupil, as there would be great danger of causing a prolapsus of the vitreous humor,

as it would receive too little support from the iris. He, therefore, allows the greatest effect to be over, and operates when the pupil has already contracted, and the iris acquired a slight degree of motion. The application of the hyoscyamus will also prove beneficial, if we operate according to Beer's method,* as the cataract, passing out along with its capsule, requires greater yielding of the pupil; and, if partial adhesions of the iris to the capsule are to be separated, the wider the pupil, the more safely can the necessary means be used for their separation; and likewise, if the capsule is opaque, it can be more completely destroyed if the pupil be previously in a state of dilatation, and the danger of wounding the iris with the knife, in a case of a very flat cornea, would thereby probably be diminished.

"The dilatation of the pupil by the hyoscyamus, would be of great use in Conradi's† method of effecting the absorption of the cataract by opening the capsule; as, in this case, the success depends entirely on the free access given to the aqueous humor to the lens,—consequently, the capsule must not be opened merely in one small point, but a large

* "This mode is very accurately described in the *Encyclopædia Britannica*, article Surgery.

† "From the well known fact of the crystalline lens being often gradually absorbed, whether it be of a hard or soft consistence, if the capsule is opened, and the humors allowed to come into free contact with it, Conradi was led to propose the following simple operation: 'A small lancet-shaped cataract needle is introduced through the cornea, exactly as the knife in extraction, only a very little farther distant from the iris. The point is passed through the pupil, and when the capsule is sufficiently opened, the needle is withdrawn from the eye, which is bound up loosely for two or three days, as in general, after that time, so slight a wound of the cornea is quite imperceptible, and then we wait for the absorption of the cataract. The needle does not require to be quite so long as Richter's cataract knife, and it should not be more than a line and a half or two lines in breadth. Its thickness should be very small, merely to give the blade a sufficient degree of firmness; it must be sharp on both sides for nearly one half of its length.' Conradi adds, 'It is unnecessary to dwell on the evident advantages of this operation; it is much more easily performed than any other. From this very slight and trifling wound of the insensible cornea, no bad symptoms are to be dreaded, which partly occur during extraction and depression, partly follow after these operations. If, after eight or twelve weeks, the cataract is not absorbed, any other operation may be performed as easily as if this puncture had not been made. The patients have lost nothing but the time; and, as they have in general been many years blind, it is not of much consequence, a few weeks, more or less, in order to make the trial of freeing them from their disease by a safe and easy method.'—See Arnemann's *Magazin für die Wundartzneiwissenschaft*, 1 B: 1. St. Göttingen, 1797."

incision

incision must be made in it, which can be readily done if the pupil be previously dilated."

7thly, The local application of the hyoscyamus is particularly useful in contraction of the pupil, which is not accompanied with an adhesion of the iris to the capsule.

To the excerpts made from this work of Professor Himly, which has been translated into French with the mistake of *hyoscyamus* being rendered *belladonna*, Mr. Wishart adds some facts from the late Professor Schmidt of Vienna, who used these two narcotics both externally and internally.

"In the month of May, 1803, Professor Schmidt operated on twenty-nine patients of both sexes, affected with cataract, in the general hospital at Vienna; on twenty eyes by extraction, and twenty-two by depression of the lens. Of these twenty-nine persons, twenty-six recovered their sight. Eight were selected as the subject of his experiments. In five he tried the application of the solution of the hyoscyamus four hours before the operation; in three he used the inspissated juice of the leaves of the belladonna as many hours before the operation. The phenomenon of the retraction of the iris (dilatation of the pupil) occurred in all the eight patients, but the degree of the dilatation was different in each individual. The difference of age and sex had no influence on it.

"Of these eight patients, he operated on three eyes with the couching-needle, through the sclerotic and choroid coats, and six by extraction through the cornea. Of the three that were couched, in a woman the iris expanded completely during the puncturing with the needle, and the pupil assumed its smallest dimensions. Of the six operated on by extraction, the same phenomenon was observed in one woman and one man; and in two others, the expansion of the iris evidently took place, but was not complete. To one of these three, where the complete expansion of the iris came on during the incision of the cornea, the belladonna was applied. Of these nine cases, only one was attacked with iritis after extraction, and consequent closure of the pupil.

"Of the twenty-two eyes operated on by extraction, there were only two where the cataract was followed by a slight effusion of the vitreous humor, and this only occurred in the eyes subjected to experiment. It ought also to be observed, that this protrusion of the vitreous humor occurred without any strong pressure having been applied to the eye-ball; that the cataract was purely lenticular, and there was no unusual adhesion of the capsule; and lastly, in both cases, the belladonna had been used. Professor Schmidt lastly remarks, that, in all the six patients, it appeared to him as if the cataract was more *unwilling* to come out, (if the expression may be allowed;) and that he was convinced, that neither the size of the incision, nor of the opening of the capsule, nor any sort of adhesion, could have the most distant share in producing this circumstance."*

* "See Ophthalmologische Bibliothek von Himly und Schmidt, St. 11. B. 1. Jena, 1803."

It is of some practical importance to ascertain whether the narcotic principle in these plants differs in degree only, or in some quality or property by which it acts on the iris. Mr. Wishart says he has generally, of late, used the hyoscyamus in preference to the belladonna, because it excites less pain. In one case of cataract he used the hyoscyamus as a palliative for a year, without observing any bad effects to arise from this long and continued use. It will be worth while to ascertain if the belladonna possesses, in an equal degree with the hyoscyamus, the valuable property of drawing back the iris into the eye, so as to reverse its usual form, making that part concave which is naturally convex. We consider the action of the narcotic principle of vegetables upon vitality generally as of great interest, and in the particular cases now mentioned to be highly important. With this impression we may be pardoned for laying before our readers some facts in the preceding account possibly known to many of them; but an object of so much utility cannot too often come under observation.

II. Dissection of an Albuminous Concretion which was found in the Cavity of the Thorax, loosely adhering to the Pleura Pulmonalis; with some Observations on the Diseases of the Serous and Synovial Membranes. By JAMES WARDROP, Surgeon.

On opening the thorax of an adult a whitish tumor was observed, loosely adhering to the pleura. It very much resembled a piece of cartilage, in color, transparency, elasticity, and firmness. Its form was globular, but slightly flattened, its surface polished, and it was about the size of a Spanish hazel-nut. It adhered to the lung in a few points by white membranous bands. It cut precisely like common cartilage, and the section showed it to be composed of a number of concentric laminæ, surrounding an osseous central portion. The bony nucleus was small, of a dark brown, and composed of concentric layers.

This case gives Mr. Wardrop occasion to make some observations on what he denominates albuminous concretions, and on diseases of the serous and synovial membranes. He contends that the formation of cartilaginous or osseous substances in various cavities is not to be considered as the growth or elongation of cartilage or bone; or to be a deposit or decomposition of the synovial fluid, or of that fluid which moistens serous cavities, but that they are the sequela of previous inflammation; and he states his hypothesis in the following passage:

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" It is very probable that the membrane lining those cavities in which the concretions are formed, has been at one period or another affected with inflammation. When a serous or synovial membrane becomes inflamed, in place of mere exhalation which is naturally going on, a distinct quantity of fluid is collected, from which an albuminous deposit is formed. In most instances this albuminous matter is re-absorbed; but when a portion remains, it acquires a very considerable degree of firmness, as we observe in adhesions formed by the pleura and peritonæum converted into bone. If a piece of albumen be in this manner left loosely attached to the membrane, and if a quantity of fluid be at the same time collected in the cavity, the albumen will be modelled into a particular shape, from the motion and pressure to which it is exposed. Whilst the albumen remains attached, it may thus undergo various changes in form, and any fresh attack of inflammation, however slight, may add to its bulk; but when it is once detached, by its slender peduncle giving way, no future change can take place, unless that of absorption; for, when loose and unconnected, it must be considered as separated from the system, and liable to be acted on by the absorbents as a foreign substance. It has been briefly noticed, that these concretions are either entirely composed of a soft substance, or of a substance partly soft and partly osseous; or they are altogether composed of bone. The same may be noticed of the common adhesions formed between serous and synovial membranes, and of the changes which those membranes themselves undergo from chronic inflammation. These too are sometimes merely ligamentous, but in other instances they are ossified; thus showing, that adhesions and concretions ought to be considered as the effect of the same morbid action, and merely varieties of disease, in place of distinct morbid alterations of structure."

III. *Case of Hernia Cerebri.* By DANIEL PRING, Surgeon.

The points of this case are shortly these:—A man received on the 8th of April a blow on the head, by which a fracture of the cranium was occasioned. No symptoms of cerebral derangement ensued for some days; but the sore in the scalp was ill-conditioned, and by passing a probe into the wound, some spicula of bone were discovered. At this time, the seventh day after the accident, there was great prostration of strength, and the pulse was no more than 50, soft, and extremely weak. On the twelfth day there was great increase of irritation, and symptoms of pressure on the brain had appeared. On the thirteenth day there was a protrusion in the wound esteemed to be fungous, but which proved to be a portion of cerebral substance, constituting the *Hernia Cerebri*.

As there had been evidently a secretion of pus on the surface of the brain for some distance, within the cavity of the cranium, from the wound, this hernial state of the brain, by shutting up the exit for the pus, became the accidental cause

cause of the pressure and irritation. By degrees the patient got well, and on the 3d of June the wound was quite cicatrized.

It is presumed by the author, that the spicula of bone, which had inflamed the membranes and subsequently produced sloughing and hernia, should have been early removed, though no symptoms of cerebral derangement were present. In particular instances this may be proper, and where it can be done without much exposure; but as a general principle of practice the propriety of it remains doubtful if not objectionable. It may be a question if exposure of the dura mater is the surest way to prevent its inflaming. The symptoms of pressure arising from the confinement and accumulation of pus within the cranium, may in these cases be removed by pressing down the hernial protrusion with a smooth spatula, so as to give exit to the fluid at sufficiently frequent intervals. Immediate mischief will thus be prevented; and, as far as our experience goes, we can say, that by gentle and judicious pressure the protruded part of the brain will be gradually confined within the cranium.

IV. *On the good Effect of Ipecacuan and Laudanum in Dysentery.* By GEORGE PLAYFAIR, Surgeon.

Half a drachm to a drachm of ipecacuan with from 30 to 60 drops of laudanum were given, confining the patient for some hours to an horizontal posture. It usually happened, that after the medicine was taken, no inclination for stool was experienced for many hours, the patient being, during that time, free from pain; several loose motions then took place, but unmixed with blood, and without tenesmus. It sometimes happened that several loose motions succeeded the medicine in a very short time, and none afterwards; and that the bowels were even costive the day after the medicine had been taken.

Seldom more than one dose was required, but when any symptoms remained, a repetition next day was sufficient to cure the disease. This treatment was adopted at the commencement of the disease; afterward it was not beneficial, because the stomach became too irritable to retain the medicine. The following cases will explain, in a measure, the disease, and illustrate the treatment.

“W. Troy, a private of his Majesty’s 65th regiment, was, on the evening of the 11th of April, attacked with dysentery. The symptoms were severe, and accompanied with fever. He had given him half a drachm of ipecacuan, with 35 drops of laudanum, and had several loose easy motions in the course of the night. On the morning of the 12th, the griping pain had almost left him; he felt

easy in his bowels, and during the whole of the day had only one motion; but he complained of slight head-ache, his pulse was rather quick, and his skin hot. I gave him three grains of calomel, with a little rhubarb, and he had for his diet sago, with an allowance of wine. 14th, He had no griping pain, head-ache almost gone, felt a sensation of soreness all over the abdomen, and had no stool since the 12th. I gave him 15 grains of rhubarb and 30 grains of magnesia, which procured him three easy motions, after which he seemed well in every respect. His head feeling light and giddy, had a few doses of bark and port wine, and on the 16th was discharged well. The medicine in this case caused no nausea whatever."

" — Dawson, 24th of April, complained of severe griping and looseness of the bowels, with constant inclination to go to stool, and much tenesmus; his evacuations consisted of mucus mixed with blood. I gave him one drachm of ipecacuan with 60 drops of laudanum. He vomited the first, but retained a repetition of the dose. Had only one stool in the night of the 24th, and the griping had entirely left him. He had for his food a strong decoction of barley. On the 26th he had two or three stools, which he described as consisting entirely of blood, but had none in the evening or during the night. The morning of the 27th complained only of flatulence; his face seemed slightly swelled, and had been so ever since he had the first dose of the medicine. Had complained of head-ache on the 26th, but which had then left him; 28th he had no complaint remaining."

V. VI. Cases of Hydrophobia. By Mr. TYMON, Dr. BERRY, and Dr. SHOOLBRED.

These cases have previously appeared in the preceding volume of our Journal.

VII. VIII. On the Introduction of the Depletory Method of Cure in the Tropical Fever.

In the ardent fever of the tropics, the interruption of inordinate vascular action by the combined powers of bleeding, purging, and the affusion of cold water, forms the general indication of cure. It is the object of the first of these papers to show that this method of treating the early stage of yellow-fever has been long and universally adopted; and that the opinions and practice of Drs. Jackson, Rush, Moseley, Rutherford, and Lempriere, sufficiently controvert the assumed originality of a paper on this subject by Mr. Parson, reviewed in our preceding volume. The paper No. VIII. is published with the similar view of showing that the practice suggested by Mr. Parson must have been generally known, especially as Dr. Dickson, physician to the fleet, had, in 1810, dispersed a circular on this subject to the surgeons on the Leeward Island station.

IX. On the Brain Fever produced by Intoxication. By JOHN ARMSTRONG, M.D.

The disease here called *Brain Fever* appears very distinctly to be that which Dr. Sutton describes under the appellation *Delirium Tremens* (vide the Report at the beginning of this Number). Dr. Armstrong's description of the disease, and his treatment, justifies this conclusion.

"This disease," says Dr. Armstrong, "which I shall continue to designate brain-fever, is preceded by restlessness, defective recollection, paleness of the face, and slight tremors of the limbs; by anxiety, and irregularity of thought. At first the patient's slumbers are short, and interrupted by frightful dreams; but he soon becomes watchful, and passes days and nights without sleep; he dislikes to be alone, and if his friends leave him in private, he is clamorous till they return, or goes about the house in search of them. His appetite is considerably diminished, and he frequently loaths the very sight of animal food. He is more especially sick at the stomach towards the morning; he often vomits his breakfast; and the slightest exercise, or agitation of mind, produces perspiration. As the complaint advances, the skin becomes hot and dry, the tongue parched, and the pulse weak and rapid. The surface of the body, however, soon grows cooler, and is covered with sweat, and the tongue puts on a cleaner appearance; but the irregularity of mind increases; the patient imagines that his friends are all conspiring against him, or that they have suffered some great misfortune, in which he is himself deeply implicated:—at other times he supposes that his chamber is haunted by spectres, and furiously calls for assistance to drive them away; or supposes that he is in a prison, and that his friends have all deserted him; sometimes, however, he is in high spirits, laughing and talking by turns incessantly. Occasionally, too, he converses with the medical attendant about his ordinary business, with apparent precision; tells him that he has been continually engaged, and walked or rode to several places in the neighbourhood, since he last saw him, when, in reality, he had never left his own room:—at the next visit he mistakes the physician for some other person, and loads him with abuse. If any one happen to contradict him, he most pertinaciously adheres to his opinion, and becomes highly indignant. If he be soothingly dealt with, he will sometimes answer questions readily and distinctly; but if many interrogations be put to him in succession, he grows confused, and relapses into delirium.

"The symptoms already described continue more or less urgent for four, five, or six, and seldom longer than ten days. If the patient falls into a sound and tranquil sleep, he generally awakens refreshed and collected, and from that time recovers rapidly: but short disturbed slumbers, accompanied with subsultus tendinum, from which the patient starts with affright, and then falls into a low muttering delirium, are amongst the most dangerous indications. I have seen one case accompanied by convulsions from the very beginning of the disease; but they were speedily subdued by a large dose of æther, and the patient recovered very well.

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" This kind of brain-fever is distinguished from typhus by not being contagious ; by having no petechiæ, or cadaverous smell ; by the delirium attacking the patient more suddenly, and continuing with more impetuosity ; by the heat of the surface of the body not remaining permanently above the natural standard ; and by there being less prostration of the muscular powers in the commencement of the complaint. It is known from inflammation of the brain, by the more moderate degree of fever ; by the absence of turgescence and redness of the eyes, and impatience of light ; by the paleness of the face and weakness of the pulse."

The number of cases treated by Dr. Pearson of Newcastle, who published a small tract on this subject in 1801, and by Dr. Armstrong, justify, perhaps, the positive conclusion, " that this disease *invariably arises from intoxication.*" The treatment which is stated by Dr. Armstrong to be generally successful, is precisely that laid down by Dr. Sutton.

" About 40 or 50 drops of laudanum should be administered on the first attack of the disease, and repeated in doses of 25 drops every five or six hours, till rest be procured. An ingenious friend of mine, who has seen much of this disease, always combines small doses of æther with the laudanum, which he has found an efficacious method of treatment. I have myself witnessed its good effects in three severe cases, and have reason to think that it is an improvement upon the practice here recommended. The common drink of the patient may be barley-water, agreeably acidulated with lemon-juice. From a pint to a bottle of Madeira wine may be allowed in twenty-four hours, regulating the quantity, however, by the state of his constitution and previous habits. Fresh ale or porter may also be moderately allowed him, and, in addition, the system must be supported by strong beef-tea and nutritious soups. Madeira is preferable to any other wine, because it rests better upon the stomach, and, in general, restores the tone of that organ in such cases, better than any other stimulus. Coercion must never be used ; on the contrary, the feelings of the patient must be soothed by the kindest attentions, and he must be permitted to walk about the house, or even into the open air for a short time, if he desire it, provided the weather be sufficiently temperate. Venesection is almost invariably inadmissible, and, perhaps, highly dangerous in every case of the kind ; at least I have known some instances in which it was attended with fatal consequences. Blisters never do any good, but generally harm, from the irritation which they excite. Drastic purgatives, and even mild aperients, in general, must be avoided in the commencement of the attack ; but when the patient has once obtained refreshing sleep, the latter may be administered with safety, and even advantage, but the former must never be given in this disease."

X. On the Nature of the Disease affecting Persons employed in Silvering Mirrors. By EDWARD PERCIVAL, M.D.

In a Report of the Carey-street Dispensary, in July 1812, Dr. Bateman, the reporter, states the effects produced by
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the poison of mercury on the constitution, of persons employed in silvering mirrors. Dr. Percival, comparing the phenomena of these cases with the symptoms which arise invariably from the absorption of lead, pronounces that the disease described by Dr. Bateman did not arise from the poison of mercury, but from the poison of lead.

This becomes a question of high importance to the artisans engaged in silvering mirrors, for their health, sooner or later, we believe, always suffers in that employment. If, as stated by Dr. Percival, the amalgam employed is always adulterated with lead, and if that lead, not being essential to the process, be the source of the disease, the hazard of the workmen may be entirely avoided by using a purer material. The reply of Dr. Bateman will afford us the occasion to resume this subject.

XI. Reply to Mr. Field's Justification of the Apothecaries Company, in regard to the late London Pharmacopæia.
By RICHARD PHILLIPS.

We have but little inclination to enter on the ground of these criminations and recriminations. Whether the Apothecaries Company has sometimes or frequently sold imperfect preparations, or whether Mr. Phillips is always correct, and never falls into the carelessness and mistakes he charges upon that Company, we have not the means of determining.

XII. Observations on the Case of Ann Moore. By
A. HENDERSON, M.D.

These observations having appeared in our Journal, enlarged and corrected by the author, we shall dismiss them with the remark, that they have been the means of bringing out a complete detection of the imposition practised by Ann Moore.

MEDICAL AND PHILOSOPHICAL INTELLIGENCE.

ROYAL SOCIETY.

On Thursday the 29th of April, the paper by Berzelius and Marcet, on the alcohol of sulphur, was continued. They obtained this substance by subliming sulphur through red-hot charcoal in a porcelaine tube, and receiving the product in water. Thus obtained it was usually of a yellow color, from an excess of sulphur which it contained; but it was reduced to a state of purity by distilling it in a glass retort.

Thus obtained it was a colorless liquid, like water, of a pungent disagreeable taste, and a stronger smell than sulphureted hydrogen gas.

gas. It boiled at the temperature of 110° or 115° ; and at the temperature of 53° , when the barometer stood at 30 inches, it was capable of furnishing a vapor which supported a column of mercury $7\frac{1}{2}$ inches high; so that when mixed with air at the common temperature it increases its bulk one-fourth. It is more volatile than ether, and produced so much cold during its evaporation that mercury was frozen. The alcohol of sulphur may be cooled down to -50° without congealing. It dissolves in alcohol and ether, depositing at the same time its excess of sulphur, if it happen to contain any. It readily dissolves sulphur. Mercury may be boiled in it without any alteration. Potassium, when heated with it, undergoes no change; but when heated in an exhausted retort filled with the vapor of alcohol of sulphur it burns with a red color, a black matter covers its surface, and on admitting water a solution of *hepar sulphuris* is formed, mixed with charcoal.

To determine if it contained any hydrogen, its vapor was mixed with dry oxygen gas, and detonated by electricity. No water was obtained. Oxymuriatic acid gas was made to pass through it for an hour and a half, and then through water; but no muriatic acid made its appearance, as would have been the case if hydrogen had been present in the alcohol of sulphur. It was made to pass through red-hot muriate of silver; but none of the silver was reduced to the metallic state, as would have been the case if hydrogen had been present. Finally, it was made to pass over several metallic peroxides at a red heat (as red oxide of iron, black oxide of manganese). The oxides were reduced, and converted to sulphurets; but no moisture was deposited in the tube, though surrounded with ice. From all these trials it appears that alcohol of sulphur contains no hydrogen.

On May the 6th, the remainder of the paper by Berzelius and Marcet, on the alcohol of sulphur, was read. The next object was to ascertain the presence of carbon in this oily substance. When burnt in oxygen gas, the residual gas was found to contain sulphurous acid gas. This being removed, some carbonic acid gas remained, which rendered lime-water turbid, and changed pure lime into the carbonate of lime. Both these acid gases being removed, a combustible gas remained, which detonated when mixed with oxygen gas, and was converted into carbonic acid. It was, therefore, carbonic oxide. Alcohol of sulphur being mixed with a caustic ley, with barytes-water, and with lime-water, was slowly decomposed, and a quantity of carbonic acid formed. From these and several other experiments of a similar nature, it follows demonstrably, that the alcohol of sulphur contains carbon. It is in fact a compound of carbon and sulphur, and may therefore with propriety be called *sulphuret of carbon*.

The last object was to determine the proportion of carbon present in this compound. A great variety of methods were tried, such as burning in oxygen gas, decomposition in alkalis, &c. but none of them were found to answer. At last they succeeded, by passing the sulphuret of carbon very slowly through a red-hot tube filled with red oxide of iron. The gaseous products were received over mercury.

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The red oxide of iron was partly converted into sulphuret. To determine the quantity of sulphur present, it was dissolved in nitromuriatic acid, and the whole sulphur converted into sulphuric acid. This acid was thrown down by barytes, and its quantity accurately ascertained. The gases over mercury were found to be a mixture of sulphurous acid and carbonic acid. The sulphurous acid was absorbed by brown oxide of lead, which by that means was converted into sulphate; and the additional weight being ascertained, determined the proportion of sulphurous acid present in the gas. The carbonic acid was absorbed by potash, and its weight determined in the same manner. From these data it was possible to determine the proportion of sulphur and carbon present in the alcohol of sulphur. The result was that it is a compound of

Sulphur	84.83
Carbon	15.17

100

of two atoms of sulphur and one of carbon.

On Thursday the 13th of May an appendix to the preceding paper, by Professor Berzelius, was read. It consisted of the four following particulars:—

1. An account of the method employed in determining the proportions of carbon and sulphur in the sulphuret of carbon. The mode was to decompose a given weight of sulphuret of carbon by passing it through red-hot peroxide of iron, and receiving the products over mercury. The sulphuret of iron formed was dissolved, and the sulphur converted into sulphuric acid. The weight of sulphuric acid, of sulphurous acid, and of carbonic acid, formed, was ascertained; and from the known composition of these three substances, the proportion of carbon and sulphur was determined. Two experiments were made. In the first the loss amounted to $\frac{1}{4}$ of a per cent.; in the second to eight thousandth parts.

2. Some observations on the atomic theory. According to Mr. Dalton's theory, sulphuret of carbon is a compound of two atoms of sulphur and one of carbon. Professor Berzelius makes some remarks upon Sir H. Davy's numbers, which he has adopted in his *Elements of Chemistry*, and shows that they do not answer for the metallic sulphurets with the requisite simplicity. Yet if any sulphuret be treated with an acid so as to convert the metal into an oxide, the quantity of hydrogen disengaged will always indicate exactly the quantity of oxygen in the water decomposed, which would be sufficient exactly to acidify the sulphur. Berzelius thinks that unit ought to be employed to indicate an atom of oxygen, and that the weight of the other atoms should be determined by the proportion in which they combine with oxygen.

3. On the combination of sulphuret of carbon with bases. Berzelius found that sulphuret of carbon combines with ammonia and with lime, the only bases tried. These combinations he calls *carbo-sulphurets*. Carbo-sulphuret of ammonia is formed by putting sulphuret of carbon into a tube, and letting up into it ammoniacal gas as long as it will absorb it. A yellow pulverulent substance is formed,

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which sublimes unaltered in close vessels, but so deliquescent that it cannot be passed from one vessel to another without absorbing moisture. If it be heated in that state, crystals of hydrosulphuret of ammonia make their appearance. Carbosulphuret of lime is formed by heating some quicklime in a tube, and causing sulphureted carbon to pass through it. The lime becomes incandescent at the time of the combination. On the outside there is formed some sulphuret of lime, which gives it a yellow color. This formation is owing to the action of the air, and is merely superficial.

4. When sulphuret of carbon is left for some weeks in contact with nitromuriatic acid, it is converted into a substance having very much the appearance and physical properties of camphor; being soluble in alcohol and oils, and insoluble in water. This substance Berzelius found to be a triple acid, composed of two atoms of muriatic acid, one atom of sulphurous acid, and one atom of carbonic acid. He proposes to call it *acidum muriatico-sulphuroso-carbonicum*.

On Thursday the 20th of May, a paper by Dr. Reid Clanney, of Sunderland, was read, on a lamp for preventing explosions in coal-mines by the combustion of carbureted hydrogen gas. Dr. Clanney began by giving an historical account of the accidents of this nature which have taken place in the neighbourhood of Sunderland within the last seven years; from which it appears that above 200 workmen have been suddenly killed, and more than 300 women and children left in destitute circumstances by these dreadful explosions. His lamp is extremely simple. It consists of a kind of lantern made airtight; in which a candle is kept burning. Air is constantly blown into it through water by a pair of bellows to support the combustion, and allowed to escape in the same manner through a valve. By this means no more air can explode than what is within the lantern. Thus no accident can ever happen, and the workmen will be sufficiently warned to make their escape in time.

Two circumstances, connected with this relation, deserve a more accurate investigation than they have yet received. Accidents from fire-damp, in the coal-mines in Scotland, are never known. The accidents are much more frequent in Staffordshire than about Newcastle. Do these differences depend upon the nature of the coal, or on the mode of working the mine?

Linnaean Society.—May the 4th the remainder of Mr. Anderson's paper on different species of rubus was read. He terminated it with a list of various rare plants which he had observed in Britain, especially in Scotland.

Some quadrupeds from North America were exhibited to the Society by Lord Stanley.

May the 24th, at the Annual General Meeting, the following officers were elected:—

James Edward Smith, M.D. President.

Thomas Marsham, Esq. Treasurer.

Alexander Macleay, Esq. Secretary.

Mr. Richard Taylor, Under Secretary.

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The five following gentlemen were chosen into the Council:

John Barrow, Esq.
Sir Thomas Gery Cullum, Bart.
Philip Derbshire, Esq.
Mr. James Dickson.
Edward Lord Stanley.

In the room of the five following gentlemen:—

Henry Ellis, Esq.
Thomas Furly Forster, Esq.
Lieut.-Col. Thomas Hardwicke.
Claude Scott, Esq.
George Viscount Valentia.

Since the last General Meeting about four British and three foreign members have died, and 34 new members have been elected; so that the number of fellows at present amounts to 437; the foreign members to 64, and the associates to 40.

In a paper published in Philosophical Transactions, Part II. 1812, *On some Combinations of Phosphorus and Sulphur, and on some other Subjects of Chemical Inquiry*, by Sir Humphrey Davy, Knt. LL.D. Sec. R. S. he has determined, 1. that phosphorus combines with two proportions of chlorine. The first of these is a limpid liquid; the second a white sublimate. To the first of these Sir H. Davy has given the name of *phosphorane*. It may be formed by passing the vapour of phosphorus through corrosive sublimate. It is composed of 100 phosphorus united to $333\frac{1}{3}$ of chlorine. It dissolves phosphorus.

The sublimate, called *phosphorana*, is composed of 100 phosphorus united to $333\frac{1}{3} \times 2$ of chlorine, or 666 $\frac{2}{3}$.

When phosphorane is mixed with water, and slowly evaporated, crystals in the form of four-sided prisms make their appearance. These consist of phosphorous acid combined with water. Phosphorana, treated with water in the same way, forms a thick viscid substance, which consists of phosphoric acid united with water.

2. When these crystals of *hydrophosphorous acid* are heated, they are converted into phosphoric acid, and a peculiar gas escapes, to which Sir Humphrey has given the name of *hydrophosphoric gas*.

Hydrophosphoric gas is not spontaneously combustible; but it explodes when mixed with air, and heated to a temperature rather below 212°. Its specific gravity is 0.87, that of air being 100:100 cubic inches of it, under the ordinary pressure and temperature, weigh 26.53 grains. Its smell is disagreeable, but not so much so as that of phosphureted hydrogen gas: three measures of it require rather more than five measures of oxygen gas for complete combustion. When potassium is heated in it, its bulk is doubled, phosphuret of potassium is formed, and the residual gas is hydrogen. When sulphur is heated in it, the bulk is also doubled, sulphureted hydrogen gas formed, and a compound of sulphur and phosphorus remains. Hence the gas is a compound of 4.5 hydrogen and 22.03 phosphorus, or of 100 hydrogen and 489.56 phosphorus.

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3. When phosphorus is converted into phosphoric acid, by combustion in oxygen gas, every grain of phosphorus consumes $4\frac{1}{2}$ cubic inches of oxygen. Hence phosphoric acid is composed of 100 phosphorus united to 150.5 oxygen. Phosphorous acid contains just half the oxygen present in phosphoric acid, or it is a compound of 100 phosphorus and 75.25 oxygen.

4. When phosphorus is slowly burnt in the air, the liquid produced is a mixture of phosphoric and phosphorous acids. When phosphorus is burnt in rare air at a moderate heat, the solid acid produces phosphorous acid.

5. The specific gravity of sulphurous acid gas is 2.193, that of air being 1.000, and 100 cubic inches of it under the usual temperature and pressure weigh 66.89 grains. It is composed of equal weights of oxygen and sulphur. When oxygen gas is converted into sulphurous acid gas the bulk is not altered.

6. The specific gravity of sulphureted hydrogen gas is 1.177, that of air being 1.000: 100 cubic inches of it, under the common temperature and pressure, weigh 35.89 grains. It is composed of 100 parts, by weight, of hydrogen, and 1509 of sulphur.

7. Sulphuric acid, free from water, does not appear possible to be formed. Dry sulphurous acid gas and nitrous acid gases have no action on each other.

8. The liquid compound of sulphur and chlorine, which I discovered about eight years ago, is composed of 33 sulphur and 67 chlorine.

9. Water has the property of combining in definite proportions with a great number of bodies, and it has a considerable effect on their properties. In this manner it combines with the earths, alkalis, and most of the metallic oxides.

Method of taking Iron-moulds out of Cotton.—Cottons of all kinds are apt to receive a dirty yellowish, or orange stain, from iron, which, if allowed to remain, gradually corrodes the cloth and forms a hole. At first these stains are easily removed by means of muriatic acid, or any other diluted acid (except vinegar); but, after they have remained for some time, acids have no effect upon them. It may, therefore, be useful to know a method of removing these moulds in such inveterate cases.

The iron in them is in the state of red oxide; and it appears, from various facts, that the red oxide of iron has a much greater affinity for cotton cloth than the black oxide. The object in view, therefore, should be to bring the iron in the mould to the state of black oxide; after which, muriatic acid will easily remove it. There are two methods of doing this, both of which in the present case answer the purpose completely. The first is to touch the mould with the yellow liquid formed by boiling a mixture of potash and sulphur in water, called hydrogureted sulphuret of potash by chemists. The mould becomes immediately black, and the action of diluted muriatic acid immediately effaces it. The second method is to daub the mould over

over with ink so as to make it quite black. After this, muriatic acid takes it out, as in the former case.

Composition of Azote.—Professor Berzelius has announced, in a letter to a celebrated chemist in London, that he has satisfied himself, by a mode of calculation which he has not explained, that azote is a compound of 44.6 of an unknown inflammable gas, and 55.4 of oxygen gas.

Pure Alumina.—Mr. Webster lately picked up a very curious mineral upon the beach between Brighthelmstone and Beachy Head. It is a white substance, similar in appearance to a mass of tobacco-pipe-clay; but when examined by Dr. Wollaston was found to consist of pure alumina,

New Patents.—David Thomas, of Bristol; for a new and improved method of burning animal bones for the purpose of extracting the grease or fat property therefrom, and likewise for extracting the spirituous quality therefrom, and for reducing the remainder, or dry parts of bones, into a substance sufficiently prepared for being ground into ivory black. Dated March 30, 1813.

James Timmins, of Birmingham; for an improved method of making and erecting hot-houses, and all horticultural buildings, and also the making of pine-pits, cucumber-lights, sashes, and church windows. Dated April 7, 1813.

Dr. Robert Wall, of Glasgow, has a work in the press on the History, Nature, and Treatment, of Chincoough, illustrated by a variety of cases and dissections; to which will be subjoined, an Inquiry into the relative Mortality of the principal Diseases of Children in Glasgow during the last thirty years, and the number who have died at various periods under ten years of age.

The expediency of the measure of preventing inoculation for small-pox by an act of the legislature, is again about to be agitated, by a bill presented to the House of Lords, by the Earl of Boringdon, to restrict the propagation of that disease. When this bill was presented, on Monday, the 21st of June, it was observed by Lord Boringdon, "though this country had all the honor of the discovery of Vaccination, yet, from the prejudices existing against it, of all the countries of Europe, this had probably derived the least benefit from the practice. While in other parts of Europe the small-pox had been nearly exterminated, during the last year not fewer than 1200 deaths by small-pox had occurred within the bills of mortality." The object of this bill is not to prohibit small-pox inoculation, but to subject it to such regulations as may prevent the diffusion of the contagion.

Royal

Royal College of Surgeons.—We whose names are hereunto subscribed, deeply impressed with the many fatal instances of the small-pox, which have lately happened, and which daily occur, in the metropolis, and in various towns of the kingdom: convinced that such events are, in a great degree, consequences of the support and propagation of that disease by inoculation: and, fully satisfied of the safety, and the security, of vaccination: from a consequent sense of duty to the community, do, hereby, engage ourselves, to each other, and to the public, not to inoculate the small-pox, unless, for some special reason, after vaccination; but to pursue, and to the utmost of our power promote, the practice of vaccination.

And, further, we do recommend to all the members of the College, of correspondent opinions and sentiments of duty, to enter into similar engagements.

THOMPSON FORSTER, *Master.*

EVERARD HOME,
WILLIAM BLIZARD, } *Governors.*

JAMES EARLE,	} ASSISTANTS.	WILLIAM NORRIS,
G. CHANDLER,		JAMES WARE,
CHARLES BLICKE,		J. A. HAWKINS,
T. KEATE,		F. KNIGHT,
J. HEAVISIDE,		LUDFORD HARVEY,
HENRY CLINE,		WILLIAM LYNN,
DAVID DUNDAS,		JOHN ABERNETHY.
JOHN CHARLTON,		

The project of Lucet for the cure of insanity, now before the public (as far as the projector allows his assumed secret to transpire), under the patronage of the Dukes of Kent, &c. &c. and Dr. Harness, with some other gentlemen not of the medical profession, will be duly noticed as it proceeds. In its present state, the Editors of this Journal can say but little on it; but in its progress it will be noticed to the fullest extent it may deserve.

A very singular fraud has been practised for some time past in some of the retail shops in London. Artificial pepper-corns, both white and black, are mixed with real pepper-corns, and this fraudulent mixture sold as genuine pepper. The mode of detecting the cheat is easy. Throw a handful of the suspected pepper-corns into water: the artificial corns fall to powder, or are partially dissolved; while the true pepper-corns remain whole. These fraudulent pepper-corns are made of peasemeal. The fraud should be publicly known, because such a mixture, if used instead of real pepper, may prove, in many cases of household economy, exceedingly prejudicial to those who ignorantly make use of it.

METEO.

METEOROLOGICAL TABLE.

From May 26, to June 25, 1813.

D.	Therm.			Barom.	Hygrom.			Winds.	Atmos. Variation.	
					Dry.	Damp.				
26	53	56	53	30	—	2	3	2	NW	Hail...with Thun
27	54	57	53	30 ¹	—	2	3	4	W	C. F...
28	59	71	56	30	—	11	23	14	SE	F....
29	54	73	65			9	30	15	W	F....
30	64	68	63			15	12	8	NW	C. R. C..
31	66	76	63	30 ¹	—	14	20	15	W	F....
1	69	76	66			15	31	16	W	F....
2	66	77	68	30	—	17	35	19	SW	F....
3	67	68	59	30 ¹	2	16	18	15	W	F.. C..
4	61	70	60	30 ¹	—	11	20	13	W	C. F.. C..
5	61	59	54	30	29 ⁹	16	10	12	NE	F.. C..
6	56	58	53	29 ⁸		—	10	12	NE	C...
7	53	71	57			11	26	18	NE	C. F...
8	60	74	58			15	37	20	W	F....
9	58	66	61	29 ⁶	5	17	12	6	NW	F...
10	59	65	59	29 ⁷	8	15	36	24	W	F....
11	58	68	61	29 ⁹	—	19	37	31	SW	F...
12	59	74	56	30	—	10	20	19	W	F...
13	60	66	61	30 ¹	30	20	25	15	W	F.. C..
14	59	64	56	30	29 ⁹	10	12	11	W	F...R.C..
15	57	71	56	29 ⁹	—	10	—	9	W	R.. F. R... F.
16	55	69	54	30	—	12	30	25	NW	F..
17	55	68	54			20	24	15	S	F..
18	55	61	52	30 ¹	—	20	—	19	E	C. F..C..
19	54	57	53			20	19	15	E	C..
20	58	60	56	30 ²	—	15	—	16	NE	F.. C..
21	54	65	53			20	25	22	NW	F..
22	57	68	51	30 ³	—	15	26	19	NE	F..
23	60	72	63	30 ³	30 ²	26	37	30	NE	F....
24	58	70	57	0 ³	—	23	25	15	NE	F...
25	57	71	59			20	34	16	NE	F..

Quantity of rain from the 26th of May to the 25th of June, $\frac{44}{100}$ of an inch.

This interval has been remarkably dry; the mercury has been 23 days steadily at 30 or above; the prevailing winds have blown from the N. and NE.; and the temperature has been low. Some catarrhal affections, instances of inflammatory angina, and pneumonic inflammation, have occurred in private practice; but the records of public dispensaries indicate that this interval has been unusually free from disease.

- *Prince's Street, Cavendish Square.*

MONTHLY

MONTHLY CATALOGUE OF MEDICAL BOOKS.

A PRACTICAL Synopsis of Cutaneous Diseases, according to the Arrangement of Dr. Willan; exhibiting a concise View of the Diagnostic Symptoms, and the Method of Treatment. By Thomas Bateman, M.D. F.L.S. 8vo.—Longman and Co.

The Influence of Tropical Climates, more especially the Climate of India, on European Constitutions. By James Johnson. 8vo.—Stockdale.

The Philosophy of Medicine, being Medical Extracts on the Nature and Preservation of Health, and on the Nature and Removal of Disease. By Robert John Thornton, M.D. In 2 vols.—Sherwood.

Practical Remarks on the Diseases resembling Syphilis, with Cases. By John Whittsed. 8vo.—Crosby and Co.

An Essay on the Utility of Blood-letting in Fever; illustrated by numerous Cases: with some Inquiry into the Seat and Nature of this Disorder. By Thomas Mills, M.D. 8vo.—Longman and Co.

Experimental Researches concerning the Philosophy of Permanent Colours, and the best Means of producing them, by Dyeing, Calico Printing, &c. By Edward Bancroft, M.D. 2 vols. 8vo.—Cadell and Co.

Practical Observations on the Use and Abuse of Cold and Warm Sea Bathing in various Diseases, particularly in Scrofulous and Gouty Cases. By John Gibney, M.D. 8vo.—Underwood.

An Inquiry into the Laws of Animal Life, being an Analysis of the Principles of Medical Science. By J. M. Park, M.B. 8vo.—Underwood.

Scientific Books in hand, or in the Press.

Mr. Stevenson has in the press a second edition of his *Treatise on Morbid Sensibility of the Eye*.

Mr. Leslie, Professor of Mathematics in the University of Edinburgh, is just upon the point of publishing a *View of Experiments and Instruments* depending on the relation of Air to Heat and Moisture.

Capt. Laskey has in the press *A Scientific Description of the Rarities* in that magnificent collection the Hunterian Museum, now deposited at the College of Glasgow. It is intended to comprise the rare, curious, and valuable articles, in every department of Art, Science, and Literature, contained in that great repository. This work may be expected to appear early in July.

Mr. Henry Alexander, surgeon, will shortly publish a *Comparative View of the different Modes of operating for the Cataract*.

NOTICES TO CORRESPONDENTS.

A Drawing of an ingenious Footstool, by Mr. Jennens, is received, and will appear in our next Number.

Several communications on Medical Reform have reached us, but the subject has already occupied so much space in the Journal, that we hope our friends will excuse our not inserting any more papers on this head for the present.

Communications from Dr. Prout; Dr. Kinglake; &c. &c. in our next.

THE
Medical and Physical Journal.

2 OF VOL. XXX.]

AUGUST, 1813.

[NO. 174.]

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

BEING engaged in a subject which at present occupies the greatest portion of my time, I have been induced to publish the following observations, with the hope that some one who may have greater abilities and opportunities than myself may pursue them: should this be deemed a sufficient apology for their imperfections, the insertion of them in your valuable Journal will oblige, Gentlemen,

Leicester Place, Your obedient Servant,
Leicester Square, June 10, 1813. WM. PROUT, M.D.

THE art of injecting the blood-vessels of animals has received very little improvement since the time of the celebrated Ruysch; indeed it may be said to have been at once invented and matured by that indefatigable anatomist, as few since him have even equalled, much less surpassed, the perfection and beauty of his preparations. As commonly practised, however, it obviously labors under imperfections which in many instances render it useless, there being innumerable parts in the bodies of animals which will not admit the coloring particles of the blood, much less those of common injections; and yet in a physiological point of view these are of the utmost importance, as in them take place many of the most interesting operations of organic life.

I shall not stay to inquire how far the structure of a part influences its operations, nor do I mean to contend that a knowledge of such structure, could it be obtained, would lead to a discovery of the nature of its operations: on the contrary, in the present state of our knowledge, I do not think it would; but facts of every kind are important, especially to the philosophical inquirer; and hence I flatter myself, that to him at least, the following observations, though imperfect, will not prove wholly uninteresting.

It is now some years since the notion of precipitating the coloring matter from a state of solution in the vessels themselves first occurred to me; some difficulties, however, which presented themselves, and more especially want of leisure, prevented me from putting them in practice till within the last three or four months: my first experiments, which were

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made upon the most difficult organ to inject, viz. the eye (of the ox) were attended with considerable success, the vascularity of most of its transparent parts having been plainly demonstrated.

The coloring particles of injections, it is obvious, should be opaque, but to be opaque they must be solid;* and solids of every kind, however finely comminuted, will not, as before observed, enter the vessels of transparent parts; and even supposing a fluid could be obtained, holding a sufficient quantity of coloring matter in solution, yet it cannot be fixed by the common means; for I have reason to believe, from some experiments, that a solution of isinglass, of such a strength as just to gelatinize when cold, will not enter them. Injections, therefore, capable of penetrating these infinitely fine vessels, must, in the first place, be fluid as water; and, secondly, like water be inert with respect to animal matter, otherwise they will act on the parts, and, by destroying their organization, defeat their own purpose.

The great difficulty of finding fluids possessed of these properties, and at the same time holding coloring matter enough in solution, was the grand objection which first presented itself when the above-mentioned plan originally occurred to me: almost all the metallic salts, some of which are otherwise well adapted for the purpose, are necessarily excluded from their well-known properties of acting on animal matters: the two which promised most fairly, were the prussiate of potass, and a solution of the red sulphate of iron,

* Mercury perhaps is, strictly speaking, the only *opaque* fluid, and this accordingly is often employed for minute injections; the impossibility of fixing it, however, added to its weight, and the strong attraction of its particles for each other, by which they coalesce into globules, and thus block up or burst the minute vessels, very much limit its use. I doubt much also if oils, from their strong antipathy to the watery fluids of the parts, can be made to enter them; and if they could, perhaps there is no method of coloring them so as to render them sufficiently effective. I may here mention a method of common minute injection, which I have employed with considerable success when the parts are capable of bearing the requisite temperature without being injured; this consists in using, instead of size, the serum of blood, or, what is perhaps better, the whites of eggs, a little diluted with water; the coloring matter is to be added to these in the usual proportions and thoroughly mixed, and the part when injected to be thrown into water nearly boiling hot, so as to coagulate the albumen. The easiest way of breaking down the whites of eggs and rendering them smooth, is to force them by means of a syringe through a piece of linen three or four times thick; this repeated once or twice will render them perfectly smooth.

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and accordingly it was with these my first experiments were made. I need scarcely add, that when solutions of these two salts come in contact with each other, a beautiful blue precipitate takes place, which is in fact the well-known pigment called prussian blue. Besides these, I have used for transparent parts solutions of the muriate of barytes, and an alkaline sulphate; also a concentrated filtered solution of the coloring matter of cochineal and the muriate of tin; the former producing a white precipitate, the latter a red one, or, in fact, carmine.

With respect to the strength of these solutions, I have generally used the prussiate of potass, the muriate of barytes, and the infusion of cochineal, in nearly a saturated state, especially the last; the two former, when in a state of saturation, may be diluted with about an equal quantity of distilled water. The other solutions must be much weaker, especially the sulphate of iron, a few drops of a saturated solution of which to the ounce of distilled water will be found sufficient. The best way is, however, to ascertain previously by experiment the strength of the three last injected fluids, which must be such as just to produce a full precipitate, and no more.

I do not mean to say that these are the only solutions that can be made use of for this mode of injection; no doubt others, and perhaps preferable ones, might be pointed out; but I confine myself to these, as they are the only ones I have submitted to experiment. As to the steps preliminary to injection, they are nearly such as commonly observed; I would, however, recommend the pipe to be fixed, when the artery is small, before the part be soaked, as it has been found no easy matter to do it afterwards. It is then to be put into water of the temperature of from 90 to 100, and suffered to remain till thoroughly heated, when the solutions previously heated to the same temperature, and contained in different syringes adapted to the same pipe, are to be injected one after the other. As both the fluids employed have a share in the production of the coloring matter precipitated, it may seem immaterial which of the two precedes the other; I have, however, succeeded best by first injecting the prussiate of potass, the muriate of barytes, and the colored solution of cochineal, and afterwards the solutions before-mentioned adapted for precipitating each respectively. Very little force is to be used, and time allowed for the fluid to penetrate every part; this is especially to be observed in injecting the second or precipitating fluid, which cannot be well done too slowly. If the part is intended to be preserved, a common minute injection made of size colored

with a similar pigment, may follow in the last place, which, after forcing out the others from the larger vessels, will occupy their room, and thus complete the preparation. After injecting the first of the two fluids, I have occasionally dissected the part and thrown it into the second, which penetrating precipitates the first; but this method I do not recommend except in particular cases, or where the operation has been unsuccessful, as there is always a confusion and indistinctness, and the parts look rather dyed than injected. The white injection, as before observed, is only applicable to transparent parts, or preparations to be dried and kept in oil of turpentine. With respect to the red injection, it is perhaps the most imperfect of the whole, though it is capable of the most extensive use.

It may not be amiss here to make a few observations on the imperfections of minute injections in general. In the first place, the most frequent terminations of exhalent arteries must obviously be into the vacuities of the cellular membrane; injections therefore which are capable of penetrating these vessels, must necessarily enter these vacuities, and be collected there, and thus cause a sort of general extravasation, which makes the parts appear infinitely more vascular than they are in reality: this is a great imperfection in all minute injections, which it is impossible to obviate, and unluckily it increases as the injection becomes more minute. Another grand defect is the impossibility of injecting the arteries or veins alone, without filling both at the same time. While these imperfections, however, are common to all minute injections, there is one which is peculiar to ours, and which perhaps, with every precaution, cannot be entirely obviated, though it may be considerably lessened: this is, that the coloring matter precipitated by the second solution is apt to block up the vessels, and render them impervious to its further passage, so that in many cases it never enters at all a considerable number of the vessels, and the part has of course the appearance of being uninjected. The only mode of combating this difficulty, is carefully to adjust before-hand the strength of the precipitating fluid, and taking care that it be not too strong, injecting it also very slowly, and using very little force. This defect lessens considerably the probability of success with our plan, though from its greater susceptibility in other respects, the chance may be considered as about equal with the common minute injection; at all events we may, after having injected the first solution, dissect the part, and throw it into the second, and thus ascertain, at least, if it be vascular or no; a fact which, with respect to colorless and transparent parts (to
which

which only this method is chiefly applicable) can, I presume, be obtained in no other way.

As remotely connected with this subject, I would here recommend caoutchouc, or Indian rubber, as a covering for glasses containing preparations preserved in spirits, &c. It may be softened by means of boiling water, in such a manner as to be easily stretched over the mouth of the glass as thin as parchment. It must be observed, however, that oil of turpentine, which is often used for these purposes, acts on this substance; and hence in this case a piece of bladder, as usual, should be placed in contact with the oil, and over this the caoutchouc. From some imperfect experiments, I have been led to believe, that the evaporation of most volatile fluids is prevented better by this substance than almost any other.

I shall close this imperfect sketch by offering a few remarks upon the ultimate vascularity of the eye.

The vessels of all parts of this organ appear to communicate freely with one another; the part least connected with the rest is the retina, and this is supplied by its own proper artery; a successful injection, therefore, by one of the ciliary arteries, will commonly be found to extend to every part, except the retina, and this, if at all injected, will be only partially so at its interior part. Thus at different times I have succeeded in coloring the cornea, the hyaloid membrane, the capsule of the lens, and once I flattered myself the external coat of the lens itself; on each of which in order I shall now make a few observations.

The *cornea* is known to be composed of lamina, between, and in the substance of which, during life, a fluid is probably exhaled, which preserves that exquisite transparency necessary to the proper performance of its functions: externally it is covered by the tunica conjunctiva, and internally by the membrane of the aqueous humor, both of which appear to differ in their nature, especially the latter, from the cornea itself. These membranes seem to be without proper vessels, and to be analogous to the cuticle, being pierced, particularly that of the aqueous humor, by numerous exhalents. This opinion has been inferred from the fact that the tunica conjunctiva, even after the most successful injection, was very little colored, and that upon its being removed a much greater degree of color appeared immediately below it; the same was also the case with the membrane of the aqueous humor, though it differed from the conjunctiva in seeming to the naked eye to be highly injected: this appearance, however, under the microscope, was found to depend upon an infinite number of points of color, which was considered to be the injection lodged in the mouths of its numerous exhalents,

at least the appearance could not probably be explained in any other way. The most vascular parts of the cornea then seem to lie immediately under the membranes which cover its two surfaces, whilst its central part is apparently much less furnished with vessels. Mr. Astley Cooper, to whom I took the liberty of sending a specimen, suggested that the coloring matter might be rather supposed to be lodged in the vacuities of the cellular texture, and this opinion is highly probable. I have, however, been ready to believe, that, with a proper light, (not transmitted, but falling obliquely from above,) I have seen the vessels by the aid of a high magnifier; but I do not vouch this for certain, and it will be understood that wherever the vascularity of a part is mentioned in this paper, it is inferred from the color it has acquired from the injected fluid, not that I have *seen* the vessels themselves. I must leave it to others who have better means than myself to decide if this inference be correct.

The *capsule of the lens* is supposed to be composed of two lamina, one proper and internal, and another external, formed of a reflection of the hyaloid membrane; between these two there probably lies a plexus of vessels, which send off numerous exhalents, that penetrating the internal lamina, secrete the humor of Morgagni: these are inferences I have drawn from having repeatedly seen the capsule injected or colored, and the humor of Morgagni stained and more abundant than usual. With respect to the lens itself, there is certainly a vascular connexion between it and its capsule, if not all over its surface,* at least at its circumference; once I imagined I had injected its external coat, I have many times seen it colored, but could always account for this by supposing that the coloring matter was rather deposited on its surface from the humor of Morgagni. It is however proper to observe, that in no case whatever have I seen it colored internally, though my experiments have been particularly directed to this object.

The *hyaloid membrane* I have many times seen colored in a greater or less degree, and am decidedly of the opinion, that in the adult state at least it derives all its vessels from the great arterial communication, situated a little behind the ciliary ligament, and not from the retina, as usually stated: my reasons for this opinion will be best stated when I speak of the retina; in the mean time I shall merely relate what

* I have twice observed after injection the capsule of the lens adhering so firmly to the tunica arachnoidea, that one could not be removed without the other; the humor of Morgagni in these cases was of course wanting, though there was no appearance of disease.

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has occurred at different injections. The anterior part was in general much more highly colored than any other, especially the striæ, situated over the canal of Petit, where this membrane is connected with the ciliary processes. In one instance, after using the muriate of barytes, a portion of this membrane, reflected internally to form its cells, was seen beautifully injected; it had much the appearance of the zig-zag fracture in a piece of crystal, and extended in a direction from the edge of the capsule through the centre of the vitreous humor towards its posterior part. In this case the injection had failed in every other part, so that it was elsewhere quite transparent. The vitreous humor itself I have occasionally seen tinged.

The *retina*, as before observed, is chiefly supplied by its own artery, which however has communication at its anterior part with the general vascular system of the eye. It is known to be composed of two lamina; an internal one, consisting of little more than a plexus of vessels, and an external one, very analogous to the medullary substance of the brain. I have succeeded twice in injecting this part of the eye with the muriate of barytes; there did not appear to be the least communication whatever between it and the vitreous humor, but its vessels seemed to terminate almost entirely in its external or medullary coat, under the form of innumerable penicilli, which, from their proximity to one another, appeared almost to occupy its entire substance. It may here be observed that, probably owing to the injection escaping by exhalents, the prints of the vessels of the retina could be plainly traced on the hyaloid membrane, but they could be easily washed off with a little water, and thus evidently did not enter its substance: it is probable, therefore, that the artery of the retina exhales a fluid between it and the hyaloid membrane; nothing, however, like the central artery* running from the retina through the vitreous humor to the capsule of the lens, of which so much has been said, was ever perceived; I believe, therefore, that in the adult state at least, it has no existence.

All the above observations are to be understood to have been made upon the eye of the ox: those of an individual not too old should be chosen; and I may here mention a curious circumstance, viz. that with those eyes which looked remarkably fair, and in which the cornea was unusually

* Since the above was written I have procured the eyes of a young calf, in one of which I thought I could trace the remains of the central artery; but as nothing of the kind was perceivable in the other, I am inclined to believe it was only an accidental appearance.

transparent,

transparent, I have uniformly never succeeded ; such eyes have a distinct character, by which they are easily distinguished, and of which the above-mentioned are the prominent traits ; but I am totally unable to account for the fact.

Such are the chief remarks I have to offer on that part of the vascularity of the eye named by Bichat the capillary ; and, though their *utility* may be called in question, yet they may perhaps afford at least amusement to the curious, and induce him to pursue them. Should this not be the case, I may possibly at my leisure resume the subject, and communicate the result of some experiments already performed, and of others intended to be made, with the view of ascertaining the functions of some parts of this important organ.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

MY respectful acknowledgment is due to your correspondent Mr. Aber, for the reference he has given me, in the last Number of your Journal, to Mr. Barrett's publication on the analogy subsisting between Hydrophobia and Gastritis. In that publication, as Mr. Aber truly observes, I have been certainly anticipated, both in my theoretical and practical speculations on the subject. It is indeed possible that the remarks alluded to may at the time have been read by me, but I have most assuredly not the smallest recollection of that having been actually the case. At that period, however, the perusal would not have probably made any very strong impression on my mind, as neither direct nor analogical experience had then afforded the subject the degree of interest in my estimation which subsequent occurrences have since given it. Although Mr. Barrett's observations, if ever known to me, had totally escaped my remembrance, yet it is still conceivable that they may have furnished a clue for noticing the resemblance which appeared to me to obtain between Gastritis and Hydrophobia. Of the latter disease I have had no practical knowledge, but the ample details given of it by other medical observers, enabled me to liken it to the appearances presenting in Gastritis, and seemed to warrant me in inferring, from the apparent similitude between the two diseases, that considerable similarity of cause must also necessarily exist to produce such corresponding effects. Mr. Barrett, in his publication, rests the supposed resemblance between Hydrophobia and Gastritis on the morbid appearance in the œsophagus, and in the cardiac portion of the stomach, discovered by dissection, in the

the former disease. My views on the subject arose from the symptoms and treatment of the latter affection; Mr. Aber has therefore justly observed, that Mr. Barrett's paper is the more valuable of the two. The deficiency of my speculation seems to have been abundantly supplied by the comprehensive statement of facts in Mr. Barrett's narrative. The practical induction too, as to the most efficient remedy, that of copious bleeding, is circumstantially proposed and enjoined by Mr. Barrett. Had I been aware of Mr. Barrett's paper on the subject referred to, it would have afforded me infinitely more gratification to have supported his judicious opinion by my experience of the advantages of bleeding in Gastritis, and by my persuasion of the correctness of the alleged affinity between the two diseases, than to have offered to the attention of the public observations that were much too crude and incomplete to be entitled to unqualified admission.

The coincidence that has occurred between Mr. Barrett and myself, is perhaps fortunate for the farther investigation of the subject. It may have the useful effect of bringing the question again into discussion, and of obtaining a stock of facts and observations that may be conclusive on the merits of the inquiry. On no other occasion has bleeding ever by my direction been carried to the length that it was in the case of Gastritis formerly recited, and the ultimate success of the treatment in that instance appeared to be closely connected with its *frequent* repetition during a short period. In my judgment, it would appear to be a good general rule in inflammatory affections, to draw blood not as is most commonly done *daily*, or *twice* a-day, but to repeat it every *two* or *three* hours whilst indicated by either morbid tone and hardness of vascular action, by inordinate visceral excitement, or by acute pain. The object in extensively depleting the vascular system, is to lessen the stimulus of distention, and to diminish the contractile power of the muscular fibre to a degree that would incapacitate the inflamed parts for sustaining the inflammatory action. This effect cannot be accomplished by insufficient means; the cause must be equal to the desired effect. The course of *anti-inflammatory* bleeding, that should be instituted in diseases like Hydrophobia and Gastritis, should be limited only by that degree of vital energy that would be secure against the extinction of life. Within this limit much freedom may be safely taken. When an evacuation of blood has rendered the action of the heart slow and feeble, even to *deliquium*, it will be discreet to desist, though indeed in this prudential forbearance nature commonly anticipates what is necessary

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by rendering it impossible to carry the discharge farther, until the contractile power of the heart and arteries be somewhat restored. The interval for effecting this renewal of power, is that which should determine the repetition of bleeding in inflammatory affections possessing any kindred violence to hydrophobia and gastritis, and this will in general be found to be about *three* hours rather than *twelve* or *twenty-four*, as usually enjoined and acted on. I am firmly persuaded that a more valid and useful rule could not be proposed in the cure of visceral inflammation, than that of drawing blood every *three* hours, in such quantities at each time as the action of the heart will bear, and continuing the practice as long as the characteristic symptoms of inflammatory disease may remain.

Would not phrenitis, pleuritis, pneumonia, carditis, hepatitis, enteritis, cystitis, and other similar affections, be at least equally benefited by such treatment as hydrophobia and gastritis? Experience, the unerring touchstone of truth, will surely answer in the affirmative.

Taunton,
June 14, 1813.

I am, &c.

ROBERT KINGLAKE.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

PERFECTLY coinciding in your opinion on the variously-useful information to the profession and to the public, likely to be obtained by a medical view of the different countries of the United Kingdom, I now endeavor to contribute my mite to the general stock, by transmitting a topographico-medical survey of the county of Nottingham.

I trust you will excuse me suggesting to your correspondents the additional advantages deducible from an enumeration of the inaugural theses of the different physicians, and from a notice of whatever essays or memoirs may have been given to the world by the different medical characters of each county, whether diffused in the extensively-circulated monthly journals, or in separate volumes. This may be accomplished without any considerable trouble.

Allow me also the liberty of remarking, that no very essential benefits can result from publishing these surveys in alphabetical order, which may have the effect of preventing for a length of time the appearance of many of the different counties; and altogether of retarding the views which I am disposed to entertain on this subject. I would recommend that the topographical surveys should be published in each Number as they are received by the respectable Editors of the

the Medical Journal; and when they have been given to the medical world in this detached manner, I should have great pleasure in seeing them collected in regular alphabetical order in one number of the same work. This number will always prove a valuable source of reference, and our brethren with a very inconsiderable degree of trouble may be acquainted with the names, residence, and different departments, of all the medical men in the United Kingdoms, with the inaugural theses of graduates, and the publications of every practitioner. Proceeding now to the topographical survey of Nottinghamshire, I remain, Gentlemen,

Your constant reader, and occasional contributor,

H. B.

In the neighbourhood of Nottingham is a large handsome Infirmary, supported by voluntary subscription, and gratuitously attended by the medical officers. The number of patients admitted into this Infirmary during the last year (1812) amounted to 45, and the out-patients to 336. This Infirmary has received patients during the last 31 years, and has admitted and discharged in that period, in and out patients, to the number of 37,161. Of this number 4107 persons were admitted on sudden accidents; and there have been, since its first opening, 190 amputations, 9 trepanned, and 51 cut for the stone. The medical officers of this excellent institution are the following:—Dr. John Storer, consulting phys. extra. for life; Dr. William Marsden, Dr. Charles Pennington, Dr. Alexander Manson, physicians; Mr. Thomas Wright, Mr. John Attenburrow, and Mr. John Wright, surgeons; Mr. Robert Thompson, house-surgeon, apothecary, and secretary; Mr. Carden Thompson, apprentice in the hospital.

A handsome and extremely commodious building has lately been erected in the neighbourhood of Nottingham for the reception of lunatics; the medical officers of which are:—Dr. John Storer, consulting physician; Dr. Charles Pennington, physician; Mr. Henry Oldknow, surgeon; Mr. Morris, director.

Physicians practising and residing in the town, with their inaugural theses, &c.

Dr. John Storer,* (*De Anginâ Malignâ,*) Glasg. 1771.

Dr. William Marsden, (*De Variolis,*) Edinb. 1792.

Dr. C. Pennington, (*De Puerperarum Febre,*) Glasg. 1795.

Dr. H. Payne, (*De Antimonio,*) Edinb. 1810.

Dr. Alex. Manson, (*De Synochâ,*) Edinb. 1811.

* Dr. Storer has given an instructive paper in the third volume of the Medical and Chirurgical Transactions, intitled, "An Instance of the entire Want of Pulsation in the Arteries of Paralytic Limbs."

Surgeons practising and residing in the town of NOTTINGHAM:—Mr. Thomas Wright, Mr. Attenburrow, Mr. John Wright, Mr. Maddox, Mr. Basnett, Mr. Butlin, Mr. Williams, Mr. Calvert, Mr. Buck, Mr. Watts, Mr. Stanley, Mr. Higginbottom, Mr. Allen, Mr. Oldknow.*

NEWARK.—The following medical gentlemen practise and reside in Newark:—Physician, Dr. Robert Buck, (*De Ischuria Renali*,) Edinb. 1778.—Surgeons, Mr. Lacey, Mr. Parker, Messrs. Bland and Deeping, Mr. Ashwell, Mr. Thompson, Mr. Cooke.

RETFORD.—Physician, Dr. John Bigsby.—Surgeons, Messrs. Cavie and Holmes, Messrs. Russel and Hartshorn, Mr. Flower, Mr. Ince.

SOUTHWELL.—Mr. Thomas Falkner, Mr. Hutchinson,† Mr. Cooke.

MANSFIELD.—Mr. Paulson, Mr. Savage, Mr. Bowmer.

TUXFORD.—Mr. Clarke.

DUNHAM.—Mr. Eyre.

SUTTON-ON-TRENT.—Mr. Spry, Mr. Mann.

SUTTON-IN-ASHFIELD.—Mr. Bachelier.

WARSOP.—Mr. Robinson.

ARNOLD.—Mr. Keyworth.

CARLTON.—Mr. Mann.

BINGHAM.—Mr. Rose.

CAR-COULSTON.—Mr. Blagg.

ALLERTON.—Mr. Ward.

WORKSOP.—Mr. Marson,† Mr. Clarke.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

ON looking over your last Number, (for July,) I find there a case of obstinate vomiting related by Dr. Yeats; in which, after having used many ineffectual remedies, he at length discovered the utility of mercury, in arresting the progress of so obstinate a disease. As a farther proof of the success of this practice, when properly directed,

* Mr. Oldknow has given two ingenious papers in the volumes of the Edinburgh Med. and Surg. Journal on Hydrophobia, and on the operation of tying the great Saphena Vein.

† Mr. Hutchinson is the author of the *Biographia Medica*, and of several papers in the *Memoirs of the Medical Society of London*, and in the *London and Edinburgh Medical Journals*, &c.

† Mr. Marson is the author of one or two papers on the subject of Vaccination, in one of the early volumes of this Journal.

I shall

I shall here add a few cases, which will at once convince any unprejudiced observer of its good effects in such cases.

Mrs. Chesen had for many years been affected with a stomach complaint, attended with vomiting. At length she became quite confined to bed, and regularly vomited every thing taken. She also complained of much pain at the pit of the stomach, with much oppression over the whole epigastric region. During the first week of her confinement, I tried all the common remedies used in such complaints, viz. purging, anodynes, cardiacs, and tonics, without the least benefit. As she appeared now in a hapless condition, I determined to lay all other medicines aside, and put her under the influence of mercury as soon as possible; by which I knew, from former experience, I could at least stop the progress of her disease for a time. She was therefore ordered two grains of calomel, with half a grain of opium, every three hours, in form of a small pill, which remained on the stomach, as no liquid was taken more than could possibly be avoided. In about forty-eight hours, the mouth began to be affected, and the vomiting to subside. The calomel was continued for another day, when it was laid aside, her mouth being now her chief complaint. No more vomiting appeared, and all the load at the stomach, as well as the pain, ceased. Her mouth remained sore for a week or ten days, during which she took some weak decoction of bark, and recovered her strength rapidly.

2. Mrs. Lanham had been ill of similar complaints for near a fortnight when I first visited her. She was now quite confined to bed, and unable to retain any thing upon her stomach. As she appeared almost reduced to a skeleton, I first attempted to check the vomiting by tonics and anodynes, as her bowels were pretty regular; I soon, however, found that these had no effect, and without farther delay gave her the calomel in doses of four grains with one of opium every four hours, with a view to affect the mouth as soon as possible. The case being severe, it required even at this rate almost a week's perseverance before the mouth was affected, when, as in the former instance, all her retchings and vomitings began to subside. She now omitted the calomel, and took the decoct. cinchon. as a tonic, which completely restored her in about a fortnight more.

N.B. In the first part of her complaint she vomited a stomach-worm of the teres kind, which seemed, however, to have little cause in producing her complaint, as the sickness and vomiting remained equally severe till the mouth became affected.

3. Mrs. Allen.—This was a still more obstinate case, as it was

102. Mr. Hamilton on *Mercury in obstinate Vomiting.*

was more chronic. She had been for months attended by a physician and surgeon, without any permanent benefit. She was confined to bed, and appeared in the utmost danger. I was called up to her in the night, and, as she appeared dying, the retching and vomiting having continued incessant for several hours, with a burning heat at her stomach, I at first attempted to allay it by giving several drams of tinct. opii, which was no sooner taken than it was ejected. In this state, knowing not what to recommend, I gave her cold water only, in small quantities, as fast as she could swallow it, and applied cloths wetted with vinegar over the region of the stomach, which were renewed every ten minutes. This produced such a shock as to check the vomiting for several hours, when I seized the opportunity of introducing the calomel and opium, as in the last case. The desired effect was produced in about a week, and the result was equally pleasing. Here, as in the former instances, just in proportion as the mouth became affected, in the same proportion did all her other complaints subside. She afterwards took the bark, and has had no return of the disease since, although now more than five months.

4. Mrs. Bond had been attended by a medical gentleman for near a fortnight, who finding no abatement of the disease, ingenuously confessed his doubts with regard to her recovery. Under these circumstances I was called in all haste, when I found her complaining of much pain over the epigastric region, a sensation of weight or oppression at the pit of the stomach, constant retching and vomiting on taking any thing into it, pulse rapid, skin hot, bowels regular. On pressing the hand over the region of the stomach and umbilicus, I could easily perceive a considerable enlargement of the left ovary and spleen, which latter seemed to press against the stomach, and was no doubt the chief cause of vomiting in this case, especially as the sickness was only induced by taking something into the stomach which naturally enlarged it. Here, then, I had two strong inducements to use the calomel: first, to prevent organic disease; and, secondly, to arrest the vomiting, which was in this instance a necessary consequence of the former. She was therefore ordered to lay aside all medicines except the calomel, which she took at the rate of twenty grains a-day, with three of solid opium, in form of three pills, at the distance of six hours for six days, without either materially affecting her mouth, or making much impression on the disease. The sickness, however, was considerably abated, and the oppression at the stomach nearly removed. Here the calomel was omitted for two days, fearing a violent pyalism would ensue on its

farther perseverance. The day after its omission, the vomiting and oppression seemed to return, when I immediately determined on its resumption, as I knew I had gained nothing till the mouth was affected. She now took ten grains with three of opium every twenty-four hours, during five more days, when the mouth at length appeared affected, and it was again omitted. From this period the mouth continued sore for near a fortnight, during which she drank some decoct. cinchon. and recovered rapidly, without ever mentioning vomiting or load at the stomach from the commencement of the ptyalism. In this case, which was truly obstinate, the only difficulty was to induce the salivation, she having taken upwards of 180 grains of calomel before the violence of the disease allowed it to affect the mouth; now was it carried off by the bowels, as they were generally costive during the fortnight of its exhibition; it acted only as a gentle sudorific. The subjects of these cases, although they have all occurred within the last six months, now enjoy the most perfect health. And in every instance of this practice, the convalescence seems particularly short when aided with the bark.

Although I have been for some time making experiments and observations on the effects of this medicine, which promise the happiest result, I shall here conclude, without entering at present into its *modus operandi*, by stating one fact which is as invariable as the law of nature on which it is founded, viz. in proportion as a ptyalism is induced, in the same proportion will the original disease subside.

Ipswich,
July 6, 1813.

Your's respectfully,
W. HAMILTON, Surgeon.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

IN consequence of the great attention which has been bestowed by the philosophical world to the impostor Ann Moore, together with the spirit of inquiry which still exists as to the possibility of the human animal subsisting without food, I have transmitted to you the following extracts from a paper in the Harleian Miscellany, which I thought at the least curious, and perhaps not without some degree of interest. The discourse was written by John Reynolds, and dedicated to Walter Needham, Doctor of Physic, and Member and Curator Elect to the Royal Society. It bears

bears the date of 1669.* It is singular that the instance of reputed abstinence which he has related occurred also in Derbyshire. His exordium, consisting of a collection of similar instances, bears strong testimony of such occasional deviations from the course of nature; and I must confess, although at a loss to account for it, we are by no means to disregard such a mass of evidence, let the impositions have been ever so numerous. Many other facts less palpable to the community at large, and much less susceptible of proof, are believed, although equally inexplicable; and deceptions of this kind are so easily detected by the eye of the vulgar as well as that of the philosopher, we ought to be no less cautious in our rejection of what appears supernatural, than in giving it our implicit credence. Credulity and incredulity are alike the offsprings of unreflecting habits. Too great a pliability on the one side, and too much inflexibility on the other, are obstacles that will always interrupt the way to truth. That pen, however, as our author says, "certainly drops blasphemy, that dares to raze the sacred records; and that uncharitableness which presumes to write falsehood upon all human testimonies: they that assent to nothing not confirmed by authority, are unfit to converse in human societies; for how can I expect that anybody should believe me, whilst I myself will believe nobody? It is an argument of an empty brain, to presume to comprehend all things, and thereupon to reject those things from an existence in their world, that have not their science in its intelliguals."

"Most certain it is, that the † learned Moses ‡ fasted forty days, and as many nights, whilst he abode in the burning mount; the great Elijah || went as long in the strength of a meal; and no less was the fast of the holy Jesus. § St. Austin ¶ reports, that, in his time, one survived forty days fasting.

* A Discourse upon prodigious Abstinence; occasioned by the twelvemonth's Fasting of Martha Taylor, the famed Derbyshire damsel: proving that, without any Miracle, the Texture of Human Bodies may be so altered, that Life may be long continued without the Supplies of Meat and Drink. With an Account of the Heart, and how far it is interested in the Business of Fermentation. By John Reynolds. Humbly offered to the Royal Society. London: Printed for Nevil Summmons, at the Sign of the Three Crowns, near Holbourn Conduit, and for Dorman Newman, at the Surgeons Arms, in Little Britain. 1669. Quarto, containing 37 pages, besides the Title and Dedication.—*Hart. Miscell.* vol. iv. p. 43 et sequent.

† Acts vii. 22.

‡ Exod. xxx. 23.

|| 1 Kings xix. 8.

§ Matt. iv. 2.

¶ August. in Epist. 86. ad Cæsulanum.

But

But most strange is the story fathered on Nicephorus,* of three brethren affrighted by persecution into a cave, where they slept three hundred and seventy-three years, as was known by the coin they produced when they waked. The learned Fernelius† saith, he saw a pregnant woman that lived two months without meat or drink. Zacutus Lusitanus‡ reports, that at Venice there lived a man that fasted forty days; another there forty-six days; and from Longius and Fontius (two considerable writers) another full three years; and that with just stature, good habit, free countenance, and youthful wit. The famous Sennertus§ is copious in such stories: he relates from Sigismundus and Citesins, a person he saith worthy of credit, that the people of Leucomoria, inhabiting some mountains in Muscovy, do every year die, in a sort, (or rather sleep or freeze,) like frogs or swallows, on November 27, and so continue in that rigid state; the humor, distilling from their nostrils, is presently condensed by the ambient cold, much like to icicles, by which those potent pores are precluded, and the most endangered brain fortified against the fatal assaults of brumal extremities. The same Sennertus rehearses a story of a virgin at Padua, from Viguntia, professor there, who, anno 1598, was afflicted with a fever, then a tumor, then arthritic pains, and pains in the ventricle and whole abdomen; then with vomiting and nauseating of food, till at last she could take no food for two months; then, after another fit of vomiting, purging, and bleeding, she fasted eight months; and after a little use of food, she fasted two months more. And to be short, he stories it of three persons that fasted each two years, one three years, another four, one seven, another fifteen, another eighteen, and one twenty; yea one twenty-nine, another thirty, another thirty-six, and one forty years. Famous is the story, perhaps fiction, being poetical, of Epimenides,§ (whose words St. Paul is thought to cite in his Epistle to Titus,) whom some report to have slept seventeen years, some seventy-seven years together. But enough of story: those that are desirous to read more, are referred to Marcellus Donat. lib. iv.; de Med. Hist. Mirab. c. 12; Schenk, lib. iv.; Observ. Guaguinus, lib. iii.; Hist. Franc.

* Nicephor. lib. xiv. cap. 45.

† Fernel. lib. vi. Pathol. cap. 1.

‡ Zac. Lusit. de Medic. Princ. Hist. p. 914.

§ Sennert. Pract. lib. iii. par. 1. sect. 2. c. 3. De Longa Abstin. p. 383.

—§ Vld. Sennert. ubi antea. Zac. Lusit. ubi antea. Plutarch in Sympos. et Lib. de Facie in Orb. Lunæ.

No. 174.

2

Petrarch,

Petrarch, lib. iii. ; de Mirabel, c. 22; Portius de Hist. Puellæ German.; Uspergensis in Chron.; Lentulus in Hist. Admir.; Apol. Berius, lib. de Vini Nutritione; Bozius, lib. xi. c. 4. de Signis Eccl.; Fulgorius, lib. i. c. 6; Lepæus, lib. ix.; Hist. Scot. Favorinus apud Gellium, lib. xvi. c. 3; and especially Licetus, who wrote a particular tract to solve the phenomena of this prodigy."

"But further to satisfy these incredulous persons, it is affirmed that some of these abstinent* have been watched by the most wakeful eyes and jealous ears, to detect their fraud, if guilty of any; as was that maid that refused all food, except only water, for three years, by Bucoldianus, with whom she abode for twelve days, at the command of Ferdinand the Emperor; so that Apollonia Schrejerana was taken by the senate of Bern, and put into the hospital of that town, and there watched till they were satisfied of the truth of her total abstinence."

Most of these cases are certainly too unnatural to attempt to refute, however gravely they may have been asserted. Useless, therefore, as the task would be to disprove what nobody would believe, as well as to combat with arguments the existence of what has been said to be seen, believed, and sworn to, it would be equally unjust to doubt the authenticity of the whole. The case which the author himself has related, bears strong testimony of the possibility of the human body subsisting under privations of food for a number of days, if we do not give credit for the full time he has represented. This abstinent, he says, "is one Martha Taylor, a young damsel born of mean parentage, inhabiting not far from Bakewell in Derbyshire; who, receiving a blow on the back from a miller, became a prisoner to her bed for several days; which being expired, she obtained some enlargement for a time, but by increasing distempers was quickly remanded to her bed-prison again; where continuing some time, she found, at last, a defect in her gula, and quickly after a dejection of appetite; so that, about the 22d of December, anno 1667, she began to abstain from all solid food, and so hath continued, (except something so small, at the seldom ebbings of her distemper, as is altogether inconsiderable,) till within a fortnight before the date hereof, which amounts to thirteen months and upwards; as also from all other sorts, both of meats and drinks, except now and then a few drops of the syrup of stewed prunes, water, and sugar, or the juice of a roasted raisin, &c. but these repasts are used so seldom, and in such very small quantities, as are prodigiously insuf-

Sennert. ubi supra.

ficient

sufficient for sustentation; she evacuates nothing by urine or stool; she spits not, that I can hear of, but her lips are often dry, for which cause she takes water and sugar with a feather, or some other liquids; but the palms of her hands are often moist, her countenance fresh and lively, her voice clear and audible; in discourse she is free; her belly flapped to her back-bone, so that it may be felt through her intestines,* whence a great cavity is admitted from the cartilago ensiformis to the navel; and though her upper parts be less emaciated, (though much too,) yet her lower parts are very languid, and unapt for motion, and the skin thereof defiled with a dry pruriginous scurf, for which, of late, they have washed them with milk; she sleeps so sparingly, that once she continued five weeks waking. I hear nothing of any extraordinary previous sanctity,† though since her affliction, being confined to her bed, which lieth in a lower room by the fire-side, she hath learned to read; and being visited so plentifully by the curious from many parts, as also by the religious of all persuasions, she hath attained some knowledge in sacred mysteries, but nothing of enthusiasm, that she pretends unto. And, lest she should prove a cheat, she hath been diligently watched by physicians, surgeons, and other persons, (for at least a fortnight together,) by the appointment of the noble Earl of Devonshire, as is already published by Mr. Robins, B. of D., that is, ballad-maker of Derby; whose ballad, they say, doth much excel his book. Likewise several other persons, at other times, have been pleased to watch for their own satisfaction, who, detecting no fraud, have given the account above mentioned; which was, for the main, confirmed to me by a sophy, the renown of whose wisdom hath often made England to ring, who assured me that he had an exact account of her."

It was observed by Dr. Henderson, from Magn. Gabr. Block. that all examples of extraordinary fasting have been confined to the female sex. This is another confirmation of the remark. Men, however, under circumstances of necessity, have been enabled to endure severe privations, even under considerable bodily exertions. The crew of Bligh,‡ and the history of many other navigators, give full testimony

* This appears to have been the same with Ann Moore, in her last stage of abstinence.

† In the time of Reynolds and his predecessors, it was generally supposed that food was supplied these abstinent by angels or dæmons. To prove that this was not the case, he has particularly mentioned her being a person of no great sanctity.

‡ Vide Thornton's Medical Extracts.

of the powers that exist in mankind when their natural support has been materially reduced, and also totally taken away.

The principle of life in the torpid animals is certainly capable of being maintained by some mysterious laws quite independent of circulation, secretion, or digestion; for, according to the observation of Hunter,* a portion of food put into the stomach of one of these animals in their dormant state, will not be acted upon till the season when its customary functions are renewed, and yet it continues subject to the properties of living matter. It resists putrefaction, and possesses muscular power whenever called into action by its proper stimuli.

Two circumstances in the human frame, however, I should conceive incompatible with a state of abstinence, the appearance of which would always lead me immediately to suspect imposture, the growth of the animal, and a healthy state of it. The intimate sympathy of the stomach with every part of the body, must, in every case of derangement, particularly in cessation of action, produce its correspondent effects upon the system at large; and that an animal will grow when it has no matter but air to feed upon, is quite repugnant to common sense. Reynolds has given in this tract a long and curious account of the mode in which life is supported, which, according to the notions of the times, he supposed to depend upon maintaining a regular supply of food, to repair the necessary waste from the secretions; on the preservation of natural heat; upon fermentation continuing in the blood; upon the supply of vital spirits resulting from

* J. Hunter on the Animal Economy, p. 194, 5, &c.—In the hedge-hog, by the experiments of Mr. Jenner, he found that while the heat of the stomach was at 30°, it had neither the desire nor the power of digesting food. “Spallanzani also mentions the slowness of digestion in serpents, and quotes Bomare, (Dict. d’Histoire Nat.) who gives an account of a serpent at Martinico, in whose stomach a chicken had remained for three months without being completely digested, the feathers still adhering to the skin.” Mr. Hunter doubts the truth of this in such a warm climate; but he says, that “at Belleisle, in the beginning of the winter 1761-2, I conveyed worms, and pieces of meat, down the throats of lizards, when they were going into winter quarters, keeping them afterwards in a cool place. On opening them at different periods, I always found the substances which I had introduced, and without any alteration; sometimes they were in the stomach; at other times they had passed into the intestine; and some of the lizards that were preserved alive, voided them toward the spring, but with very little alteration in their structure.”—*Hunter’s Observations on Animal Economy*, p. 195, 6.

food

food and fermentation; and upon sleep, which was conceived to arise from fumes ascending to the brain from ingested food.

Each of these circumstances he has treated upon separately, as far as with regard to this fasting woman. The opinions advanced are too ridiculous to mention. They appear, however, to have satisfied him as to the veracity and probability of these anomalies. Such is the danger of theorizing and endeavoring to account for every thing. Although Darwin* very forcibly remarks, that to theorize is to think, yet we are too liable to think wrong, more especially on what we know but little of: indeed, it is only taking up our time in idle speculations, when it might be better employed in the observation of the things themselves. It is seeking, too often, shadows for the substance, and at the best it tends to idleness. When men can account for things, they forbear further examination; and the cases themselves, which ought to be established by incontestible evidence, are then only supported by the chimeras of their narrator.

As I do not recollect any reference being made to this old and extraordinary production, I have therefore troubled you with a few extracts and remarks from it.

I have the honor to be, Gentlemen,
Your most obedient and often obliged Servant,
JOHN DUNN,

Member of the Royal College of Surgeons, London.
York, July 4, 1813.

P. S. When I was in the neighbourhood of Burton-upon-Trent, with the Royal Cumberland militia, I remember being informed of another very extraordinary circumstance, besides that of Ann Moore, by some of the men. They assured me they had been to see a person who possessed the faculty of sight only on a Sunday. They gave me a reference to the person, which I have lost; perhaps you may learn the particulars of this case, as far as regards its identity or fallacy, from some of your correspondents in that quarter.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

MR. GRANGER having thought proper to forestal the Rev. Leigh Richmond's intended statement of the second watch and subsequent exposure of the impostor Ann Moore, I trust I shall be allowed to offer a few brief

* Darwin's Zoonom. Preface, p. 2.

remarks upon his paper which appeared in the last number of the Edinburgh Medical and Surgical Journal, called an Account of the second Watch at Tutbury, in which he must permit me to say he is not quite correct, and the errors appear to me to be material. The coming publication of the Rev. Leigh Richmond may, in the opinion of some persons, render any comment unnecessary; but one or two errors being of a nature not to be noticed by that gentleman, I hope I shall not be thought intruding upon the time of your readers in bringing the subject before them once more.

Mr. Granger says, "that on the tenth day the debility was so extreme as to occasion syncope, the pulse 140 and indistinct;" then in a note he says, "that it is now admitted that the illness was simulated for the purpose of exciting alarm." Now I would ask whether it was possible to feign (I do not like the word *simulate*) syncope with a pulse at 140 and indistinct? Where did he learn that delirium is always a precursory symptom of death from abstinence? Again, he says, "that on the ninth day a consultation of several gentlemen of the faculty was obtained, whose opinion was that Ann Moore was *moribund*!" Why use this obsolete term? The fact is, she never was in a state of syncope. On the ninth day she was evidently sinking from inanition, and the committee being alarmed, sent for Dr. Garlike that evening to visit her as soon as possible. He went over the next morning early, and found her exhibiting the usual appearances of a person in a dying state. He recommended the watch should instantly cease, and that the daughter should be immediately sent for, which was agreed to by the committee; and the presumption is, that being left to themselves the daughter administered some kind of nutriment to her, since in a few hours she began to revive, and the next day was nearly as well as usual. There is no proof that she swallowed any vinegar and water on the ninth day, and it is fair to presume she did not, for a spoonful of warm water was put into her mouth on the morning of the tenth, just before the watch ceased, by desire of Dr. Garlike, none of which she swallowed. Mr. Granger says she swallowed two spoonfuls of milk, but does not say when, and therefore this information cannot be interesting to any one: it might be two days or a week after the watch ceased, and no one doubted that as soon as the daughter was admitted she took nourishment.

In page 79 of your last Number of the Medical and Physical Journal, you say that the observations of Dr. Henderson have been the means of bringing out a complete detection of the imposture practised by Ann Moore. Now this is not correct:

correct:—in November last, previous to the appearance of Dr. Henderson's observations, it was proposed by the Rev. Leigh Richmond that she should undergo a second watch, which she consented to, and steps were then taken, with the concurrence and advice of other gentlemen, to carry it into execution. With the sequel you and the public are acquainted. This may appear trivial, but I think it right to correct a material error, and to show that Dr. Henderson's pamphlet had not any thing further to do with the second watch and subsequent exposure than perhaps somewhat accelerating it.

It seems to have been admitted by the most sceptical as to the stories of her living without food, that, as Mr. Granger says in the *Edinburgh Journal*, her lower extremities are in a state of paralysis. I have, however, the authority of Dr. Garlike (whose opinion agrees with my own) for stating that in his opinion her extremities never were paralytic, and that she has sensation and can move them. This opinion will probably appear in the Rev. Leigh Richmond's pamphlet.

I am, Gentlemen,

Your obedient Servant,

JOHN WEBSTER,

Member of the Royal College of Surgeons, London;
Derby, July 7, 1813.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

I SHALL take the liberty of making a few remarks on a case, at page 36 of your last Number, dignified with the name of *Convulsions during Labour*, because no proof is adduced that this was a case of puerperal convulsions, and because I think that the *prompt* and *decisive* mode of treatment, which your correspondent takes credit to himself for adopting, was very unsuitable to that complaint.

Let us inquire what are the diagnostic symptoms of convulsions during labour?

1st. These are commonly some of the *precursory* symptoms, viz. giddiness or severe pain in the head; bloated or suffused countenance; vacillation of mind; temporary loss of sight or indistinctness of vision; drowsiness, or heaviness to sleep; sometimes a very slow pulse.

2dly. The *immediate* symptoms are those of the epileptic paroxysm. The patient suddenly loses all sensation; the muscles first become extremely rigid, and are speedily afterwards thrown into violent convulsions; the face is distorted;

the

the eyes are protruded; the patient gnashes her teeth, and foams at the mouth. After this paroxysm is over, she remains in a comatose state, has stertorous breathing, and at length, except in very aggravated cases, slowly recovers her recollection. After a longer or shorter interval, a fresh attack takes place, and it is to be remarked, that a case of true puerperal convulsions very rarely happens in which there is not a repetition of the paroxysm.

None of these symptoms are mentioned by your correspondent as being present in his patient's case: we are only told that during his absence she had been attacked with convulsions, and that about an hour afterwards he found "her extremities contracted and stiff, her pulse nearly gone, her breathing scarcely perceptible, and a peculiar wilkness in her countenance," symptoms by no means indicative of the access of puerperal convulsions, an hour before; on the contrary, at this period after the convulsions, the pulse will be found beating with great force, and the breathing will be hard and laborious.

It may be asked, if the patient mentioned at p. 36 had not puerperal convulsions, what was her case? A slight attention to the narrative will, I conceive, resolve this question. We are told that the poor woman was in a state of despondency on account of the circumstances of a former labour, in which it had been necessary to have recourse to the forceps. This state of mind just fitted her for an attack of *hysteria*, and this, and not puerperal convulsions, was, I conceive, her disease. Should this, however, be doubted, it will be sufficient to refer the incredulous to the *prompt and decisive* mode of treatment which effected the cure, viz. *two tea cupsful of a strong mixture of brandy and water*. We have the authority of every old woman in the kingdom that brandy is a sovereign remedy for hysteric symptoms and faintings, but there are few practitioners who would chuse to rely upon this powerful stimulant as a means of curing puerperal convulsions.

I remain, Gentlemen,

Your occasional Correspondent,
OBSTETRICUS.

July 10, 1813.

P. S. Your correspondent, Dr. Spark, p. 29, would confer a great obligation on practitioners of midwifery, particularly the younger ones, if he would point out a mode of readily distinguishing between the cases of tedious labour arising from spasmodic affection of the uterus, and those arising from rigid muscular fibre: they will, I fear, very often mistake the one for the other. Dr. S. imagines that the opium in the first case will have the happiest effects, in
the

the latter none. Now I cannot conceive of opium that if it is not a very efficacious drug, it will prove altogether inert: I think if it does not do good, it must do mischief, in the large doses which Dr. S. recommends: hence the necessity of pointing out with great precision the cases in which it may be safely employed.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

I AM desired by the Board of the National Vaccine Establishment to request that you will insert in your next publication the enclosed Report of the Board printed by order of the House of Commons, in order that the same may be as extensively known as possible.

I am, Gentlemen,

Your most obedient Servant,

Sun Court, Cornhill,

CHARLES MURRAY,

July 14, 1813.

Secretary.

REPORT of the NATIONAL VACCINE ESTABLISHMENT,
Dated April 22, 1813.

*To the Right Hon. Viscount Sidmouth, Principal Secretary
of State, Home Department, &c. &c. &c.*

National Vaccine Establishment,

MY LORD,

Leicester-square, April 22, 1813.

The Board of the National Vaccine Establishment have the honor of informing your Lordship, that during the year 1812, the surgeons appointed by their authority to the nine stations in London, have vaccinated 4521 persons, and have distributed 23,219 charges of vaccine lymph to the public. The number vaccinated this year exceeds that of 1811 by 1373, and the demand for lymph has been often so great that it could not without difficulty be supplied. The Board had last year reason to think that nearly two-thirds of the children born in the metropolis, were vaccinated by charitable institutions or private practitioners. There is now reason to believe that three-fourths of those born are submitted to that salutary operation. But though the prejudices against the cow pock, which have been artfully encouraged by ignorant and interested men, appear generally to decline in the metropolis, as well as in other parts of these dominions, yet it is with concern that the Board have noticed the increase of mortality from small-pox in this city last year, to the number of 1287.

NO. 174.

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Previous

Previous to the discovery of vaccination, the average number of deaths from small-pox, within the bills of mortality, was 2000; and, though in the last ten years 133,139 persons were added to the population of this great city, yet in 1811, by the benefit of vaccination, the mortality was reduced to 751. The increase in the last year we have reason to ascribe to the rash and inconsiderate manner in which great numbers are still inoculated for the small-pox, and afterwards required to attend two or three times a-week, at the place of inoculation, in every stage of their illness. This practice of inoculation, and of promiscuous intercourse of the patients at the same time with society, is the great means by which this disease is kept in existence, and its infection propagated to persons and places where it would not otherwise be seen. This is not only the opinion of this Board, founded on observation, but it is a fact confirmed by communications to them from the best authorities, and by the most unprejudiced characters.

The respectable College of Surgeons of Dublin allege that the practice of inoculation not only supplies a constant source of infection, but prevents the extinction of the disease, for even a short interval.

The populous city of Norwich was never free from it till the discovery of vaccination, but since that period it has experienced occasional remissions from its ravages. In 1807, after its disappearance for some time, the disorder was brought into that city by a vagrant from London, who, before the magistrates were apprised of it, or before the salutary advice given by the faculty to provide a place where such person might be secluded from intercourse with the inhabitants could be adopted, communicated the contagion. Of 1200 who took the infection, 203 died. At that period, viz. 1807, the prejudices against vaccination had not subsided. But in 1812, when that city was threatened with a similar visitation, by the appearance of the small-pox in the neighbourhood, the magistrates, the faculty, and the clergy, concurred in recommending vaccination. Between the 10th of August, and 22d of October following, 1316 persons were vaccinated. The result was, that though one gentleman, whose child the faculty refused to inoculate, procured matter of small-pox, which he applied himself, and from this source seven persons took the infection, yet by means of this seasonable vaccination not a life was lost.

This result, so different from the events of 1807, cannot but make an impression on every mind open to conviction: when vaccination was not performed, 1200 persons took the small-pox, of which number 203 died: when speedy recourse
was

was had to vaccination, there was not a single victim to the disease.

But it is not at home only that lessons, so much to the credit of this new art, may be learned. The Board have abundant communications from every quarter of the world equally to its advantage. To detail all the evidence which they may have received as to its efficacy, not only in preventing the small-pox, but its power to suppress its ravages under the most unfavorable and threatening circumstances, would extend this Report to an improper and an unusual length. They will content themselves with mentioning a few particulars, which they trust will recommend it to the favor and confidence of their countrymen, and to the fostering care of government.

On the continent of India, vaccination has been hailed as the greatest blessing, and has been practised with the greatest success, and in the most extensive manner.

In the islands of Ceylon and Bourbon it has been received in a manner no less favorable, and been practised with an effect no less beneficial. In the isle of Ceylon, since its first introduction, more than 200,000 persons have been vaccinated; 30,491 in the year 1811 only, as appears by the account from Mr. Anderson, the Superintendant General, to whom but one case of failure, in preventing the small-pox, (and the circumstances of this case render it very doubtful) has occurred, in the great numbers which he has seen.

At the Cape of Good Hope the small-pox is dreaded as much as the plague, and it has proved there little less destructive to human life. Lord Caledon, the late governor, established at Cape Town a Vaccine Institution, which was soon called into activity under his successor Sir J. Cradock. The colony consists of a population of 80 or 100,000 individuals, of which number it was supposed 15,000 were subject to take the infection of the small-pox, which appeared there on the 12th of March, 1812. Between that time and the 4th of July following, 233 persons caught the disease, of which number 100 died. The remaining part of the inhabitants liable to the disorder were preserved by an active vaccination, in which all the faculty in the place, as well as the regimental and garrison surgeons, strenuously exerted themselves.

From the various details with which the Board have been favored, we think it our duty to select one instance, as tending to show in a most pointed manner the power of the vaccine lymph to arrest the contagion of the small-pox.

Four hundred negroes from Mosambique were, on the 1st
of

of March, landed at Cape Town, one of whom, a woman, was on the 5th succeeding afflicted with the confluent small-pox in its most virulent form. This female was at that time inhabiting a large room in common with 200 more of her companions, not separated either by day or by night. On the report of this case, the whole of these victims of "avarice and cupidity," as the surgeon terms them, were immediately subjected to vaccination, and on the following day removed to a small island (Paarden Island) at a little distance from the town. A few days after this the woman fell a sacrifice to the most aggravated character of that dreadful disease. Of the aggregate number of negroes, 78 individuals received the vaccine disorder, and underwent the regular course of its action. From these subjects the remaining portion were vaccinated. "They remained on the island fifty days, during which no further case of small-pox made its appearance, although they had been exposed to the whole strength of the contagious atmosphere; nor is there a single instance wherein any of this large proportion of persons became subject to the small-pox." It is added by the professional gentleman who writes this account, that throughout the entire course of this "arduous struggle" (the general vaccination) not a single instance had come to his knowledge of the failure of vaccination in protecting the individual from the small-pox, where the former was ascertained to have taken effect.

At the Havannah, by the account written by Dr. Thomas Romey, Secretary to the Committee of Vaccination, 13,447 persons were vaccinated in 1810; 9315 of these persons had been vaccinated in the City of Havannah alone, with so good an effect, that for two years not a single person had been interred in the public burying ground of that city who died of the small-pox, which before was a great cause of mortality in it.

In the Caraccas, and in Spanish America, the small-pox has been extinguished by vaccination. For the means which were taken by the Spanish government, and its subjects, we must refer to the subjoined papers, furnished by some Spanish gentlemen now in London.

The accounts from various parts of Europe are almost as favorable. In the Report of last year it was observed, that the small-pox was extinguished at Milan, and at Vienna, in which latter place for many years the average mortality from it had amounted to 800.

From Malta information has been received that not only his Majesty's ships are supplied with lymph to vaccinate such

such sailors as may not have had the small-pox, but, that the children of the artificers of the dock-yard, and nearly 3000 Maltese children, have been vaccinated by the Institution there (gratis): and it is added by Mr. Allen, the surgeon of the Dock-yard, that during a residence of seven years at Malta, he has never known an instance of one of them being afterwards afflicted with the small-pox.

Russia has likewise participated in the benefit of vaccination. It was introduced into the Russian empire in 1804; and since that time, in its various provinces, 1,235,637 have been vaccinated; and so uniformly successful has vaccination been, that it has been termed, in the language of that country, the *pock of surety*. Dr. Crichton, Physician to the Emperor of all the Russias, observes, supposing (according to a well-founded rule of calculation) that before the introduction of vaccination every seventh child died annually of the small-pox, vaccination has saved the lives, in the Russian Empire, of 176,519 children, since the year 1804.

The government of France appears to have taken the greatest pains to secure to the people all the advantages which could be derived from this discovery. A central institution was soon established at Paris, to encourage and to promote the practice of vaccination, and a similar plan for the same purpose was adopted in every considerable provincial town. These provincial institutions were not long ago ordered to make a return to the government of the state of vaccination in their several districts. From these documents a Report has been drawn up by M. Berthollet, Percé, and Halle, philosophers of the first reputation, and submitted to the class of Physical Sciences of the Imperial Institute; in which it is affirmed, that of 2,671,662 subjects, properly vaccinated in France, only seven cases appear of patients having afterwards taken the small-pox; which is as 1 to 381,666. It is added, that the well-authenticated instances of persons taking the small-pox after inoculation for that disease had perfectly succeeded, are proportionably far more numerous; and also that in Geneva, Rouen, and several other large cities, where the Jennerian system has not been circumscribed by popular prejudice, the small-pox is no longer known; and the Registers exhibit strong evidence of consequent increasing population. The Report concludes with expressing great hopes that this pestilential disorder will ultimately disappear from society.

This object will doubtless be greatly forwarded by the line of conduct adopted by the Royal College of Surgeons in London, in which city, notwithstanding the artifices practised,

tised, and the falsehoods* even propagated to discredit vaccination, it is even now gaining ground. The Royal College of Surgeons have resolved not to inoculate with variolous matter. The College of Surgeons of Dublin have formed the same resolution. In Gloucestershire sixty-three surgeons, convinced of the pernicious tendency of inoculation to support and propagate the small-pox, associated, and pledged themselves to decline the practice of it.

The National Vaccine Establishment have recommended the imitation of such examples to the members of the profession in every part of these dominions, and they have no doubt but that the good effects of such advice will soon appear, in the diminished mortality and the increased population of the country.

It may be proper to add, that the surgeons at nine stations of this metropolis, reported to us on the 14th of last January that they had no complaint of any person vaccinated by them having afterwards had the small-pox.

The Board have again the pleasure of stating, that the money granted by Parliament during the last session has been sufficient to defray the expenses of the year 1812; and they are of opinion that the same sum will be adequate to the expenditure of the current year.

FRANCIS MILMAN, President.

By Order of the Board,
JAMES HERVEY, M.D. Register.

EXTRACTS from the APPENDIX.

Copy of a Letter from the President of the Royal College of Physicians, Edinburgh.

SIR,

February 20th, 1813.

In reply to your letter of the 5th January, I am directed by the Royal College of Physicians to inform you, that during the year 1812 vaccination has continued to be practised in this city as formerly, with uninterrupted success; that there have been very few instances where inoculation for the small-pox has been insisted on; and that the mortality from natural small-pox has, in as far as the Royal Col-

* In the bills of mortality for the last year, the death of two persons was said to have been occasioned by the cow pock, but, upon investigation by the Board of the National Vaccine Establishment, they were found to have died from other causes, and the assertion was proved to be without foundation.

lege can judge, been very inconsiderable in this part of Scotland. I have the honor to be, Sir,

Your most obedient humble Servant,

JAMES HAMILTON, jun. M.A. President.

*To Dr. Hervey, Register of the
National Vaccine Institution.*

*Communication from the Royal College of Surgeons of
Edinburgh.*

The Royal College of Surgeons of Edinburgh, in reply to the request of the National Vaccine Board, have only to announce, as on former occasions, their unanimous and undiminished confidence in the security which vaccination affords against the small-pox. They have also every reason to believe that the public confidence remains undiminished. Among the higher ranks, vaccination continues to be universally practised, and though among the lower orders it has rather diminished for the last two or three years, the College attribute this entirely to the absence of any alarm from small-pox, and in no degree to a want of confidence in vaccination; for such want of confidence would naturally have led to applications for variolous inoculation; and this has not occurred within the knowledge of any member of the College.

The College regret that from the want of regular public registers they are unable to give any account of the mortality from small-pox in Scotland, or the proportion of the population that has been secured against small-pox by vaccination. They beg leave to suggest the propriety and importance of adopting some plan by which this knowledge may be obtained; for there is every reason to believe that as small-pox becomes more rare, vaccination will, among the lower orders, be still more neglected.

JAMES LAW, President.

Edinburgh, 15th January, 1813.

Copy of a Letter from the President of the Faculty of Physicians and Surgeons in Glasgow.

SIR,

Glasgow, 17th February, 1813.

Your letter of the 5th of January having been laid before the Faculty of Physicians and Surgeons, a Committee was appointed to report thereon, and reported as follows:

“The Committee appointed to report to the Board of the National Vaccine Establishment, on the progress of vaccination in Glasgow, beg leave to state, that the deaths by small-pox in the year 1812, have in that city amounted to 24; whereas

whereas the average number of deaths from 1801 to 1804 exceeded 100, and the deaths for the seven years previous to the introduction of vaccination exceed 200 yearly, though the population has of late years greatly increased; that eleven hundred and sixty-two have been gratuitously vaccinated at the Faculty Hall this year, besides the private patients of all the medical practitioners in town; and that the practice of inoculation for small-pox is totally discontinued, and the confidence in the preventive power of vaccination continues unabated."

(Signed)

JAMES MONTEATH.

B. W. KING.

WILLIAM ANDERSON.

The Faculty unanimously approve of this Report, and ordered a copy of it to be transmitted by the Præses to the Board of the National Vaccine Establishment.

I have the honor to be, Sir,

Your most obedient Servant,

J. BALMANNO, M.D. Præses of Faculty.

Report of the Royal College of Surgeons in Ireland.

SIR,

Dublin, February 5th, 1813.

I have the honor to acknowledge the receipt of your letter of the 5th ultimo, addressed to the President of the Royal College of Surgeons in Ireland, requesting the further opinion of the College on the practice of vaccination and its effects; and inquiring if the practice of inoculation for the small-pox obtains in Ireland; and what may be the mortality from the natural small-pox during the year 1812: and I am directed by the College to state in reply thereto, that since they had the honor of communicating with you on this subject early in the last year, no circumstance has occurred to induce them to alter the favorable opinion then expressed on the practice of vaccination.

Genuine cow-pox, considered as a disease, appears to the College to be characterized by mildness, seldom induces any very obvious constitutional indisposition during its progress; and, it is believed, has uniformly proved an effectual prevention of small-pox.

A few cases of small-pox succeeding to vaccination have been reported to the College to have occurred since the last communication; but in these, either the cow-pox vesicle was imperfectly formed, or the other appearances, the existence of which is necessary to mark the true disease, were unsatisfactory. And further, the number of these cases is so small in proportion to that of vaccinated persons who are known to have

have resisted variolous contagion, particularly during the year 1812, that the confidence hitherto placed by the College in the anti-variolous effects of cow-pox remains unshaken.

For several years the members and licentiates of the College of Surgeons, and it is believed, all regular physicians and apothecaries in Ireland, have adopted the practice of vaccination; but it has been ascertained that some unauthorized practitioners continue to inoculate for the small-pox, and thus renovate and support sources of contagion.

To this practice has been ascribed the prevalence of natural small-pox, as an epidemic, in Dublin, and throughout the country, during the greater part of last year; the mortality occasioned by which, the College regret to be obliged to state, was very considerable, but the number cannot be ascertained, as returns are not made by the parishes.

I have the honor to be, Sir,

D. Hervey, M.D.

&c. &c. &c.

Your most obedient Servant,

J. HENTHORN, Sec.

*Translation of a Statement on the Vaccine Disorder, by
Dr. Servando de Meir y Noriega, an Ecclesiastic.*

Dated London, 10th Jan. 1813.

The small-pox, as well as the measles, were unknown in New Spain before the conquest. They were brought there, says Torquemado,* by a Negro from Pamfilo of Narvaez, and they occasioned such destruction, that he does not hesitate to affirm, that the greatest part of the Indians died, among whom was the Emperor Cuiclahuatzin, who succeeded Montezume. It is stated, that according to the reports, which Cortes ordered to be made to him, there died in the empire of Mexico alone three millions and a half. It was not long before fresh variolous infection was brought over, and according to Torquemada eight hundred thousand Indians perished.

Europe has continued to communicate this scourge at intervals of thirty, twenty, or a less number of years, and the infection extending itself from Vera Cruz to the most remote parts, has like a destructive plague spread terror, death, and desolation, over that continent. The longer it is retarded, the more fatal it becomes, because the danger increases with the age of the sufferers. Thirty-three years ago there were carried off more than ten thousand persons in the towns of Mexico and Puebla alone by this contagion, which was the last but one that has visited that kingdom, and was brought

* A Spanish historian.

there after an interval of nineteen years. It was from this last attack that I was a sufferer in my native country, Monterry, the capital of the new kingdom of Leon: and there was not a family who did not put on mourning. Some of these families disappeared altogether, because they were all adult persons, and had been seized by the epidemic in the city. Those who lived in the country were preserved from its influence by banking the dung-hills of the large and small cattle around their dwellings.

The small-pox acts with the greatest virulence upon those parts of the body most exposed to the sun, such as the face and hands; and as the Indians are more exposed by their habit of life and manner of clothing, the havoc which it makes among them is more horrible.

Torquemada says, speaking of the first introduction of the infection, that the reason why it killed so many, was, because the Indians were ignorant of the nature of the disease, and bathed and scratched themselves.

In the new kingdom of Leon there were several wandering nations, so warlike that the Spaniards could not with arms in their hands resist their attacks upon their towns; the small-pox, however, extirpated almost all of them; and fifty years ago heaps of bones, like so many trophies of the disease, were to be seen under the old tufted oaks in the fields. At this present time, when a savage sees one of his companions attacked with the infection, he leaves him, his horse, and his provisions, and flies to a great distance in the woods.

It has never happened that the Spaniards have secured themselves against infection by stopping their communications with the Indians.

As soon as the inoculation for the natural small-pox was introduced into Europe, the Archbishop of Mexico, Haro, ordered the curates and ecclesiastics to perform it through their several towns with their own hands; and although the prejudices and scruples of some hindered the practice becoming general, it is certain that to this inoculation is to be attributed the diminished evil which the small-pox occasioned fourteen years ago.

The King of Spain having sent the art of vaccination with Dr. Balmis, it was received with such pompous ceremonies, both civil and military, that the people caught the enthusiasm. I believe that not a person remained at that time unvaccinated. The viceroy's lady herself, Dona Jues de Toregui, employed herself in vaccinating the Indian children. And as the vaccine is found in the cows in the provinces of Puebla and Michauacan, every body having it at hand, all the children are now vaccinated, and the small-pox has not appeared

appeared for fourteen years. They already believe their country to be free from such a scourge, and should its contagion appear again in Vera Cruz, it would be easy to counteract it in the beginning by employing the vaccine, although its use might have been for some time laid aside.

The celebrated Dr. Unamie also writes at Luna, that in the two towns of the Sierra of Peru there had been no small-pox, because the inhabitants inoculated themselves by milking the cows who actually had the vaccine. Upon being asked, whether they had ever the small-pox, they answered, they only had a few pimples on their hands.

(Signed) Dr. SERVANDO DE MEIR Y NORIEGA.

Translation from the Spanish.

Having been secretary to the Junta, established in Caraccas, for extending the use of the variolous vaccine, I am enabled to authenticate the following facts. In the year 1803 the Spanish government fitted out an expedition for the purpose of transmitting to the Spanish establishments in America and Asia, this inestimable antidote against one of the most fatal scourges that has afflicted mankind, and which in the Spanish colonies of America has been particularly destructive, Dr. A. Francisco Xavier Balmis, private physician to the king, was appointed chief of the expedition, and to his care, and that of others of the faculty, were entrusted a number of children, sufficient to preserve the invaluable germ, communicated from arm to arm. One of the first places at which the expedition touched was the Caraccas, where the small-pox was reviving every spring, and committing no small ravages during that and the summer season. Inoculation had been long known in the Caraccas: however, this practice, indisputably beneficial to those individuals who employed it, was most fatal to the people at large, the majority of whom, either from superstition, or want of the means, could not enjoy its benefits; so that the higher classes, recurring constantly to inoculation, contributed to perpetuate and extend the contagion, of which the people were the victims.

The nature of the colonial government of America afforded the Spanish government particular advantages towards the establishment, and the universal propagation of the variolous vaccine. Thus it was, that at the expiration of a few months after the arrival of the expedition, the small-pox was entirely exterminated in the department of Penezuela. The authority of the government, the influence of the clergy, and especially the experience of its salutary effects, together with the mildness of the operation, concurring, it was soon

made general, and the children of every class were brought to the house established for the purpose, under the inspection of the Junta, to which I was some time secretary.

As the institution of this Junta was to watch over the effects of vaccination, for which purpose they communicated with the faculty of physic, and the curates of all the parishes in the department, I was enabled to ascertain, with the greatest certainty, that the success of this establishment has been in the Caraccas the most complete that can be imagined; and that only on some parts of the coast, where the population was so thin that they could not keep up yearly the vaccine fluid, the common small-pox has appeared twice. It, however, only attacked those who had not received its antidote. Equally good effects have been attested in the other parts of Spanish America, and, thanks to the illustrious Jenner, the population of this part of the world yearly receives an augmentation of 1,000,000 of lives, which, but for his glorious discovery, had fallen a prey to the small-pox.

One of the objects to which the Juntas employed in this branch have devoted their attention, was to promote investigation of the cow-pox in those districts in their respective provinces, where large herds of cattle are kept; and in the district of Calabozo, belonging to that of the Caraccas, they have had the satisfaction of finding it in the cows. The effects produced by the cow-pox originating in Calabozo, were entirely of the same nature with that brought from Europe, only it was observed that the irritation was something greater when they administered the indigenous fluid.

(Signed) A. BELLO,

London, Jan. 11, 1819.

TREATMENT of INSANITY by MESSRS. TARDY and LUCETT,
*communicated by MR. TARDY, Surgeon, of Marchmont-street,
to DR. FOTHERGILL.*

SIR,

THE new method of curing insanity so laudably countenanced by His R. H. the Duke of Kent, and a committee of noblemen and gentlemen, having created considerable interest, I have been induced to transmit to your Journal a detailed report of the first case in which it was tried, conjointly by myself and Mr. Lucett, the gentleman who communicated to me this particular plan of treatment.

Various advertisements upon this subject appeared in the newspapers during 1811 respecting this case, inserted, however, without my knowledge, previously to which the following

lowing report was sent, by Mr. Lucett, to the late Mr. PERCEVAL, Chancellor of the Exchequer, signed by myself and by that gentleman.

Case of Mr. Lucett's Process as performed upon Mr. Morgan, Editor of the Dublin Correspondent Newspaper.

Monday, Sept. 23d, 1811.—I had been informed that Mr. M. had labored under a state of insanity for eighteen months, and had been attended by some eminent gentlemen in that practice. As far as my experience and observation of the case went, it had become one approaching to idiotism blended with melancholy: there was no mania ferox. This patient had very bad nights, getting up frequently to sing, and troubled with frequent inclination to go to stool. On the first application, the pulse was lowered in number, but rendered at the same time fuller by it. The patient was put to bed immediately after the operation, which was about ten o'clock at night, and had a bason of white wine whey. From the report of the attendant he slept profoundly, without awaking, from eleven o'clock that night until six o'clock next morning, when he was awake by Mrs. M. going into his room, but went off to sleep again: he was awake again about nine o'clock, and took his breakfast: he went to sleep again, and slept until two o'clock in the afternoon, when he was again awake for his dinner. When I saw him at that time, he appeared refreshed, and was not so troublesome as when I saw him before, nor did I hear him attempt to sing, which he was continually doing the evening previous to this, and seemed more calm.

Sept. 24th.—Mrs. M.'s report to-day is, that he slept without interruption, was more tractable, and had not sung during this day.

25th.—Report the same as to sleep, &c. &c.

26th.—Report the same; sleep very good; diet, &c. as usual.

27th.—Report the sleep as before, but he had become somewhat more troublesome; would not keep up his stockings; and had begun to sing this evening.

28th.—Repeated the operation. He did not go to sleep so soon after the repetition of the process this night as at first, but he slept from ten o'clock until nine o'clock, when he was awake for his breakfast. Mrs. M. reports that he was more rational through the day than previously, and that he did not commit any glaring act of inconsistency, nor did he sing, but went off to sleep again, and awoke for his dinner.

29th.—Report: slept soundly from nine o'clock this night until nine o'clock in the morning, when he was awake for his

his breakfast, and considered by Mrs. M. as much improved with regard to any errors or extravagance of mind. Mrs. M. reports likewise that he was more particular in regard to his dress than she had observed him since the commencement of his malady, as he expressed a particular wish to have his coat brushed before he went out, and inquired for and wore his gloves, which he had not done before: he sung once this evening, but it was by particular desire of one who was not so well aware of his state of mind.

30th.--Report as to sleep the same; eat extremely hearty.

Oct. 1st to the 2d inclusive.—Slept composed from eleven o'clock (during a considerable noise in the neighbourhood) until nine o'clock on the next morning. Mrs. M. has not noticed any irrational word from him during these days: he dressed himself entirely, putting on his cravat himself without help, which he had not done previous to this time, and likewise his boots, which he had not worn for some time before. Mrs. M. reports that she had been obligated to dress him before when going out with him, but he appeared dressed correctly when she wished to take him out with her. He was extremely anxious to walk out with Mrs. Morgan on these days.

E. TARDY.

To which Mr. Lucett subjoined his signature.

The gentleman whose case is described in the above report was about 44 years of age, inclining to corpulency; had been of a cheerful disposition, and his avocations being of a public nature, he was led much into company, when he sometimes unavoidably exceeded the bounds of temperance.* He was subject to hæmorrhoidal affections, and for about nine or ten years previous to the first accession of his malady, he had had repeated attacks of the gout, which totally disappeared after the accession of insanity. For some time before the first appearance of his mental derangement, he complained of a constant pain in the back of his head, which was supposed to arise at that time from a translation of gout. On the superior part of the right parietal bone he had the cicatrix of an injury he received early in life, but I could never learn that it had been attended with any bad symp-

* Through life he had been an affectionate husband and father. Some months previous to the accession of his malady he lost a favorite child: it was conceived of consequence to open the child's head after death: he insisted upon being present, and Mrs. M. was of opinion that his symptoms of derangement advanced more rapidly from that time. About this time, likewise, he experienced a disappointment in his hopes of remuneration for his professional services, and his circumstances in consequence became considerably embarrassed.

toms.

toms. The approaches to insanity were gradual, various slight symptoms of an erroneous judgment showing themselves for some time previously.

These, as nearly as I could learn, were the principal facts that tended to elucidate the causes and nature of this gentleman's malady.

It will be observed by the report, that his state of rest was restored, and his disposition to sing and tear books, &c. during the day, was removed. His erroneous train of thoughts still remained after the process, though somewhat diminished; such as his constant regret at his reduced circumstances, at the smallness of his house, and his desire to have a larger one, with a number of servants to attend him, although his style of living was as good as his means could justify.

The treatment employed by Mr. Lucett and myself upon this gentleman, were warm immersion and warm affusions on the head, conducted in such a manner, by a considerable column of water, as to produce a slight concussion upon the shaven vertex. The bath was at first 93°, and subsequently increased to 107 and 8. He was kept in the bath about four minutes in the first trial, and afterwards from thirty to forty minutes.

The treatment was continued a short time after the above report had been sent to Mr. Perceval; but owing to an incautious and sudden increase of the temperature of the bath, a considerable and dangerous discharge of blood took place from the hæmorrhoidal vessels, to the amount of ten ounces per day. At first I was inclined to hope that this discharge might prove critical and beneficial, more especially as his hæmorrhoidal affection ceased suddenly previous to his first attack: but those hopes were disappointed; for after three days continuance of this profuse discharge, he evidently became worse, symptoms of fatuity and loss of memory being clearly perceptible. Under these circumstances, I objected to the further continuance of the bath, &c. This discharge was the more to be regretted, as unequivocal symptoms of amendment had shown themselves from the moderate application of the above means.

There were no other means used in this case but the above; indeed he had been attended by many eminent gentlemen in that practice, and I considered medicine as superfluous, and as likely to be injurious in his case.

In an establishment in which I am about to engage for the reception of insane persons, I propose to try this process with some variations on this gentleman again; and the results upon him, as well as upon some others, I will transmit to you for publication.

It may be expected that something should be said of the *modus operandi* of this application; but I apprehend the limited number of cases that have hitherto been tried, are not sufficient to warrant any just conclusions. The bath, warm and cold, has been so long used in cases of insanity, that its importance need not be dwelt upon. From the successful result of its application in two or three recent cases, it may be concluded (supposing those patients to have had the bath in the common mode) that the benefit arises from the concussion produced; and it may be effected by cold affusion likewise, while the patient is kept in a warm bath, the affusion being conducted in such a manner as to prevent the cold water from running over the patient's body, which mode of applying it I have recently tried with considerable benefit in a case of mild continued insanity; but from the result of two of the cases above alluded to, and the testimony of many writers on this subject, as well as some cases I have lately seen, it appears that a bath of very high temperature almost always allays the violent paroxysms of mania. The warm bath entirely overcomes the preternatural muscular force which they exert, and by the aid of affusion, if continued a sufficient length of time, produces syncope, and afterwards a propensity to sleep; and yet under these circumstances there is a considerable determination to the surface of the head and face, both becoming highly efflorescent. These appearances would lead one to conclude that some increased action was induced in the head, thereby overcoming any unequal distribution or impeded circulation of the blood in it. It may be supposed from those effects and appearances, that the affusion conducted in this manner must be extremely hazardous in those cases which arise from external injury of the head: in such patients the warm bath with cold affusion, and the addition of ice, as I have lately experienced, promises more favorable results; and I suspect this latter mode to be the means so much celebrated in a recent American practice. In those cases in which warm immersion and affusion were used conjointly, profuse diaphoresis was induced, which in one instance appeared to be attended with considerable benefit; in others it had a contrary effect.

These are the principal effects which I have observed from this mode of applying the bath in this malady. How far, and in what species of insanity it will prove of the greatest benefit, remains to be ascertained hereafter; as likewise how far it will secure the wretched objects of these attacks from relapses.

Marcamont-street, Russell-square,
July 20, 1813.

E. TARDY.

COLLEC-

COLLECTANEA MEDICA,

CONSISTING OF

ANECDOTES, FACTS, EXTRACTS, ILLUSTRATIONS,
 QUERIES, SUGGESTIONS, &c.

RELATING TO THE

History or the Art of Medicine, and the Auxiliary Sciences.

On the medical Effects of Climates.

A COMPLETE system of meteorology, even so far as the properties of climates, with regard to temperature only, are concerned, presents almost as great difficulties as a complete theory of the nature and cure of diseases. In this, as in many other departments of medical knowledge, we perpetually find a multiplicity of accounts, apparently well attested, but totally at variance with each other, which render it desirable to appeal to some more satisfactory testimonials than the results of common and superficial observation; while the evidence which would be required for forming useful conclusions, upon safe and scientific grounds, although in this case completely within the scope of the human faculties, is still such as to require, for its production, a combination of perseverance and accuracy which has certainly never yet existed, and which, probably, can scarcely ever be expected to be found in a sufficient number of collateral observers. Any voluminous work on the subject, whether systematic or empirical, must unavoidably contain much useless and some erroneous matter; and a short statement of a few facts, which appear to be tolerably well ascertained, first, respecting the physical characters, and secondly, respecting the medical effects of the principal climates which deserve our notice, is all that it will be possible to attempt in the present essay.

The simple indications of a thermometer, however accurately they may be observed, in the most unexceptionable exposure, by no means afford a correct test of the temperature, as it affects the human system; nor is it possible to express the modifications produced by wind and moisture, even supposing them to be easily known, by any numerical measure which shall be applicable to every relative situation of the individual. I have known an atmosphere at 65°, with a thick fog, and a very little wind from the N. E., appear, to a person taking moderate exercise, most oppressively sultry; although a person, sitting long still, might have felt

the same air uncomfortably cold. Moisture must make both heat and cold more sensible; the one, by diminishing perspiration, the other, by increasing the conducting power of air. Wind is doubly concerned in affecting the properties of a climate; first, as the great cause of preventing a general accumulation of heat over considerable tracts of country; and secondly, as having a similar effect with respect to the immediate neighbourhood of the person; and its operation is as generally perceptible in the latter way, where we have no precise mode of estimating its magnitude, as in the former, where it is correctly indicated by a thermometer sufficiently exposed: although, in fact, the most shaded fixed thermometer may often be observed to indicate a temperature many degrees higher than that of the breeze which is circulating in the neighbouring country. Still more commonly by the sea side, the wind exhibits the temperature of the water over which it has blown. At Worthing it is seldom above 64° in the hottest weather, although the sea, when the tide flows in at noon, over the heated expanse of sand, is sometimes raised to 78° , where it is several feet deep.

To the inhabitants of these islands, the most important properties of the climates of other countries are those which render them more or less fit for the residence of persons liable to catarrhal or consumptive affections. Hence, warmth and equability of temperature, especially in the winter months, are the first objects of our inquiry in the theoretical comparison of climates. Moisture is supposed, by some, to be favorable, by others, to be unfavorable, to such persons: it may, therefore, be safely neglected, except as tending to increase the evils depending on a want of equability of temperature. The effluvia of moist ground are sufficiently well known as the causes of paludal fevers; further than this they require no particular investigation. Nor can we attempt to assign any reason for peculiarities, which render some situations preferable to others, for some individuals only, laboring under a given disease, as asthma; which is sometimes induced by the atmosphere of cities, and sometimes of the country; and which is occasionally mitigated by a residence in places having no marked distinctions from such as are less favorable to it, as Kensington, and perhaps some others.

In the hotter seasons; there are few diseases, and few constitutions, which would require a climate milder than our own: in the colder, an increase of the facility of circulation, which heat appears to afford, may often be beneficial,

facial, partly perhaps as exciting perspiration, and partly as preventing too great a congestion of blood in the internal parts of the body. The mean temperature of the six winter months is, therefore, the first point of comparison that requires our attention, and such a comparison may easily be derived from the registers, which are usually kept in circumstances nearly similar.

From October to March.

London, R. S. 1790-4	43.5°
Edinburgh	40.4
Dawlish, Sir W. W. M. S. 1794 (Lond. 44.1°)	45.3
Ilfracombe, without doubt incorrect	(55)
Paris	41.2
Lisbon	55.5
Malta, Domeier	63
Madeira, Gourlay. (S.W. aspect, M.)	63
Bermudas, M.S.R.S. 1790	68
Jamaica, Botanic garden at Kingston, Clarke, Dunc. med. comm. vii. 369	74.5

From November to March.

London, 1808-9	42.6°
Penzance, 1808-9, Stirling, at 10, or about 1° above the mean	48.1

From January to March.

London, 1809	43.1° (Jan. 37.9°)
Glasgow, 1809, Stirling, at 10	40.3
Penzance, 1809, Stirling, at 10	48.5
London, 1790-4, 8 or 7 and 2	41.6
Sidmouth, 1800, M. S. R. S.	39.1
8 and 2	41.7
	42.3)

February and March.

London, 1803, 7 and 2	41.5°
Clifton, 1803, 8 and 2. Carrick	42.5

From October to December.

London, 1811, mean of extremes in each month	47.0°
Sidmouth, 1811, Clarke	45.7

From December to February.

London	39.7°
Edinburgh	36.7
Paris	36.8

It appears from this comparison, that none of the situations here enumerated, North of Lisbon, except Penzance, has any material advantage over London in the mildness of its winter. The best parts of Devonshire seem to be about

2

a degree

a degree and a half warmer; Torquay, however, may, perhaps, be a little milder than this; the account which was kept at Ilfracombe must have been taken from a thermometer in a confined or a sunny situation. But Penzance may be fairly considered as having a temperature $4\frac{1}{2}^{\circ}$ higher than London in the coldest months; nor is the journal here employed the only one which allots such a superiority to the climate of this extremity of our island. It is remarkable that the temperature of the three coldest months is the same at Paris as at Edinburgh, being, in both these cities, about three degrees lower than in London. There are, probably, particular spots on the coast of Hampshire or Sussex, which, from their sheltered situation, must be considerably less subject to the effect of the northern and eastern winds, than most other parts of the island; and Hastings, or its neighbourhood, may, perhaps, be reckoned among the most eligible of these; but the further we go up the channel, the more remote we become from the mild gales of the Atlantic, while the prevalent south-westerly winds, in passing over a considerable part of the continent, must have lost much of their warmth. It is scarcely necessary to observe, that both Malta and Madeira present, numerically, a mean temperature for the winter months, as favorable for an invalid as can possibly be desired.

Equability of temperature is a second quality, of no small importance, as tending to diminish the chance of incurring, or aggravating, pulmonary diseases, by repeatedly taking cold. When, indeed, the temperature is much below 60° , the most material changes are those which occur upon going from the house into the open air; so that a cold climate becomes, in some degree, of necessity a changeable one also. The regularity of this change, and the power of avoiding its effects by additional clothing, as well as of obviating them in some measure by exercise, contribute, however, to lessen its influence; and it does not, therefore, altogether supersede the effects of that changeableness, which consists in a great extent of variation of the temperature of two successive days, or of different hours in the course of the same day. The simplest, and, perhaps, the best mode of appreciating the effect of the extent of such a variation, in deteriorating a climate, is to observe, for each month, the greatest variation, at the same hour, in any two successive days within its duration. The mean variation of successive days may also be computed, in order to assist in the comparison; and the mean diurnal range, or the space through which the surface of the mercury moves, in ascending

ascending and descending, throughout the day and night, will give a collateral estimate of a similar nature. The best practical mode of deducing this range from the observations is, to find separately the mean of the heights for the morning and afternoon, and to double their difference. Where none of these particulars can be obtained, the extreme variation of each month will afford a character not altogether unimportant.

Mean of the greatest Variations of successive Days in each Month, for the Winter Months.

London, 1790-4, 6 mo. -----	11.5°
London, 1794 (greatest of all 15°) -----	10.7
Knightsbridge, Read, 1790-1 (greatest 23°) -----	16.3
Dawlish, 1794 (greatest 13½°) -----	10.7
Lisbon, 1788 (greatest 11°) -----	8.7
Bermudas, 1790 (greatest 13°) -----	9.0
Montreal, 1788 -----	4.0
Penzance, 1808-9. Nov. to March (gr. 10°) -----	9.2
Sidmouth, 1800. Jan. to March (gr. 16°) -----	10.9
Gravesend, 1787. Jan. -----	13.0
Ashover, Derbyshire, 1805. Jan. -----	13.5
Minehead, Atkins, 1782. Jan. -----	16.
Clifton, Feb. 1803, 9°, March, 13°, mean -----	11.

Mean Variation of successive Days for the Winter Months.

London, 1790-4, 6 mo. -----	3.62°
London, 1794 -----	3.51
Knightsbridge, 1790-1 -----	5.45
Dawlish, 1794 -----	3.68
Lisbon, 1788 -----	2.70
Bermudas, 1790, about -----	3.00
Montreal, 1778 -----	13.2
Penzance, 1808-9. Nov. to March -----	2.80
Sidmouth, 1800. Jan. to March -----	3.32
Clifton, 1808. Feb. and March -----	3.55
Gravesend, 1787. Jan. -----	4.15
Ashover, 1805. Jan. -----	3.33
Minehead, 1782. Jan. -----	4.00

Mean diurnal Range for the Winter Months.

London, 1790-4, 6 mo. -----	13.0°
Sidmouth, 1800. Jan. to March -----	10.0
Clifton, 1808. Feb. and March (Lond. 16.2°) ----	11.4

Mean monthly Variation for the Winter Months.

London, 1793-6, 6 mo. -----	25.9°
Madeira, 1793-6, 6 mo. -----	12.6
Sidmouth, 1811. Jan. to March -----	34.
Clifton, 1803. Feb. and March (Lond. 36°) -----	31.

It

It does not appear that Devonshire possesses any decided advantages over London with respect to equability of climate, if we judge of the climate of London from the observations made at the apartments of the Royal Society only: but in so central a situation, the changes must be rendered much less sensible by the effect of the surrounding buildings; and they appear to be considerably greater at Gravesend, and greater still at Knightsbridge. In this respect, too, Penzance retains its superiority even over Devonshire. Lisbon seems to have a less variable temperature than any part of Great Britain; and in Madeira, to judge by the monthly variation only, the advantage in this respect appears to be still greater.

The greatest possible equability of temperature seems however to be obtained in a sea voyage to a warm climate, in which the variation seldom amounts to half as much as in the most favorable situation on shore, even on a small island; and in pulmonary cases the motion of a ship would probably, in general, be rather beneficial than otherwise, while the fatigue of travelling in bad roads, and the danger of sleeping in damp beds, present an alternative by no means favorable to a journey by land.

The direction of the wind alone can seldom have any immediate effect on the salubrity of the climate, except by variously modifying its temperature, according to the seas or countries over which it blows. There is a method of computing the mean direction of the wind, which does not appear to have been hitherto adopted, but which affords a very simple and intelligible result, although somewhat laborious if extensively applied. It consists in finding the bearing and distance of a point, to which a light body would be carried by the wind in the course of the year, supposing the velocity to be constant, when its variations have not been ascertained by observation. It is obvious that the bearing of such a point will show at once the mean direction of the prevalent winds; and its distance, compared with the effect of a constant wind for the same time, as a unit, will indicate the degree in which those winds have prevailed.

Prevalence of Winds.

London,	1790-4	W.	9° S.	·234.
London,	1794	W.	33° S.	·188.
Dawlish,	1794	W.	6° S.	·466.
Lisbon,	1788	N.	1° W.	·315.

According to this comparison, it appears that the mean direction of the wind in Devonshire is somewhat more westerly than in London: and that the degree, in which such
westerly

westerly winds predominate, is more than twice as great as in London; or, if we convert the measure into days, that the predominance amounted, in 1794, to 68 days for London, of a wind nearly W. S. W. and to 170 days for Dawlish, of a wind a little to the south of west.

The variations of the climate of the same place, with respect to mean temperature, are easily collected from the usual meteorological computations. Dr. Heberden has very successfully combated the common opinion respecting the superior salubrity of cold winters; it appears, however, that the winter which he particularly observed was more variable, as well as colder, than usual. Mr. Kirwan has attempted to account for the greater frequency of colds, which he supposes to occur in spring and in autumn, by the greater variability of the temperature at those seasons: but both the fact and the explanation are very questionable; for in reality the variations of temperature, if estimated by the total range of the thermometer within the 24 hours, are almost uniformly greatest in the hottest weather. In London, the greatest variations of successive days at the same hours in the morning are greatest in winter; in the afternoon, in summer; and, although the latter are a little greater in April than in some of the succeeding months, the difference is by no means considerable.

Of the empirical evidence, which may be collected, respecting the medical effects of different climates, the most authentic is perhaps that which is derived from well-regulated bills of mortality; since these documents ought to afford us a tolerable criterion of the general healthiness or unhealthiness of a place, from the proportion between the annual deaths and the population, and at the same time a pretty correct determination of the degrees in which different diseases are fatal. Thus, when we find that in Stockholm the annual deaths amount to $\frac{1}{9}$ of the population, in London to $\frac{1}{11}$, in the Pays de Vaud to $\frac{1}{13}$, and in some villages in different parts of Great Britain to $\frac{1}{16}$ only, we cannot hesitate to consider a residence in the country as generally more healthy, than in a metropolis similar to either of those cities; although it cannot fairly be concluded that the healthiness is precisely in the proportion which might be inferred from this comparison, until we have considered how far the effect of emigration to a great town may influence the apparent mortality. After the age of eight or ten, the probable duration of life may be estimated with sufficient accuracy, as Demoivre has very ingeniously shown, by assuming that, of a certain number of persons born together, one will die annually until the whole number is become

come extinct; and it is well known, that this number may in common cases be supposed to be 86; so that at any given age, for instance 36, we may find the probable duration of life by deducting it from 86, and halving the remainder, which will give us 25 for the estimate required; and if this law were universally true from the time of birth, it is easy to show that the mortality in a metropolis would always be increased by the accession of settlers; so that if, for example, the whole population were supplied by settlers at 20, and all children were sent to a neighbouring village to be educated, the mortality of the town, instead of $\frac{1}{43}$, would become $1 : (43 - 10) = \frac{1}{33}$, and that of the village would be $1 : (86 - 10) = \frac{1}{76}$; and that any partial changes of a similar nature would cause a smaller alteration of the apparent salubrity, in proportion to their extent. But the mortality during infancy is actually much greater than is assumed in the simple hypothesis of Demoisire; and from this circumstance, as well as from the frequent return of aged persons into the country, Dr. Price has inferred that emigration in general has no tendency to increase the mortality of cities. In reality, the question depends altogether upon the mortality which may be supposed to take place within the first year, which is often estimated at one-third of the births; but nothing like this can well be expected to occur at any tolerably healthy place in the country; and on the whole it does not appear that Dr. Price's observations can by any means be admitted as conclusive. With respect to the evidence afforded by the prevalence of diseases, it has been observed by Dr. Gregory, that removing from a colder to a warmer climate may be beneficial, even in those diseases to which the inhabitants of the warmer climate are subject; but if they appeared to be equally or more subject to any disease than the inhabitants of the colder, there would surely be little encouragement for the change: for instance, in a person supposed to be liable to diseases of the liver, it would surely be injudicious to undertake a voyage to a hot climate, with a view of avoiding the chance of taking cold, since the well-known frequency of hepatitis, in such climates, would much more than counterbalance any prospect of advantage from the change.

The frequency of consumptions is decidedly greater in cold than in hot climates, but not by any means in exact proportion to the depression of the mean temperature. The principal situations, that require to be compared with the metropolis, as a standard, are the south of England, the south of Europe, the islands of the Mediterranean, Madeira, and the West Indies.

There

There do not appear to be any precise accounts of the proportionate mortality from consumption at any place upon the southern coasts of this island, on a scale sufficiently extensive for the comparison; but there is abundant reason to think that such a report would be greatly in favor of the salubrity of these coasts, more so indeed than any conclusions, that we should be at all authorised to form, from such thermometrical observations as have hitherto been compared. A greater number of registers is still wanting to obtain sufficient evidence for the inquiry: and it would be desirable that some journal should be kept at one of the Scilly islands, as a situation fully exposed to the influence of the sea air; for there can be little doubt that, for equability of temperature, a very small island must have great advantages above every other situation on shore. But in the present state of our knowledge on this subject, although we are fully justified in recommending a residence in Devonshire or Cornwall as advisable in a certain stage of consumption, it does not appear that any meteorological observations will authorise us to represent the advantages to be gained by such a residence, as by any means equivalent to those which may be found in remoter situations; nor that the empirical testimony, derived from accounts of the comparative prevalence of the disease, is at all so clear, or so firmly established, as to make up for the want of evidence of a great and decided superiority of the climate.

In the south of Europe, the situations which have been most frequented are Lisbon, or some other part of the peninsula, the neighbourhood of Montpellier, and different parts of Italy. In Spain, and probably in Portugal, consumption is said to be not common, but by no means wholly unknown; and whether from accident, or from causes which are likely to have a constant operation, the climate of Portugal has certainly failed, in a number of instances, of producing any material benefit, where there has been apparently a very fair chance for the patient's recovery. With respect to the south of France, it is perhaps sufficient to remark, that the general proportion of deaths from consumption at Marseilles is fully as great, as the greatest which has been observed in London, where, according to Dr. Heberden's remark, its prevalence has of late years been so much increased. In Italy the disease appears to be decidedly less frequent; and there is no reason to doubt but that, in the southern parts of that country, there may be situations approaching in their climates to those of the neighbouring islands.

It is, however, highly probable that some of these islands possess very considerable advantages over almost every part

of the continents which surround them, at least as far as we can judge by their affording a climate of that description which seems to be the most desirable; for actual experience will not allow us to be too confident of obtaining success, even from a residence in these. Dr. Domeier informs us, in his very interesting account of the island of Malta, that the thermometer seldom varies here more than 6° in the 24 hours, or stands below 51° , even in the depth of winter; while in Lisbon he has seen ice, and both ice and snow in Naples; besides that, in these two cities, the difference between day and night often amounts to 20° . If an invalid leaves England in the middle of August, the voyage lasts about a month, and is often of itself highly beneficial, so that he arrives at Malta in time to be fully prepared to be further benefited by the mild winter: it appears, however, from the more particular account which Dr. Domeier elsewhere gives of the temperature, that it continues throughout October rather higher than is altogether desirable, being seldom below 70° throughout that month; and in a country where there is scarcely any visible foliage, walls occupying universally the place of hedges, this cannot be a matter of perfect indifference.

In Madeira, though the thermometer attached to a building is seldom found below 54° , there are frequently cold winds, snow, or more commonly something intermediate between snow and hail, often falling on the mountains, at the height of 1000 feet above the sea, and at still greater elevations sometimes lying undissolved till July: and this imperfect kind of hail falls occasionally even on the low grounds. The island is probably a more agreeable residence than Malta: but it seems very doubtful whether it possesses any determinate advantage over it with respect to climate; and it is not impossible, that some other islands in its neighbourhood may afford a greater equability of temperature. We have, however, a more established experience of its beneficial effects in pulmonary diseases than of almost any other situation. Dr. Adams says, that, "in cases of tubercular or scrofulous consumption, if the patient does not saunter away his time after you have advised him to leave England, we can with certainty promise a cure." (*Med. Phys. Journ.* Apr. 1800.) This true English consumption he thinks is not to be found in Madeira, while the catarrhal affection, which somewhat resembles it, though without purulent expectoration, is not uncommon, and may be fatal if neglected or improperly treated. Dr. Gourlay agrees with Dr. Adams, in his report of the general benefit derived from the climate of Madeira, by consumptive persons going to it from colder countries,

to pass the winter in the island, and of the frequency of catarrhal affections among the inhabitants; but he strongly insists that genuine consumption is also very common and very fatal. There can however be little doubt, from the concurrent testimony of the majority of observers, that the climate of Madeira is extremely salubrious, and that consumptions, though they may sometimes occur, are comparatively rare.

In the West Indies, it is agreed by all authors, that consumptive affections are almost unknown, and that scrofula in all its forms is uncommon; while the inhabitants of the West Indies, coming into a colder climate, are peculiarly liable to the attacks of these diseases. Dr. Hunter, however, observes, that notwithstanding this exemption in favor of the natives of the West Indies, a residence in this climate appeared to him to be of no manner of advantage to persons who were already affected by incipient consumptions when they arrived there. We cannot doubt the accuracy of this evidence, as far as regards the facts which came immediately under Dr. Hunter's observation; they principally related to the military, who perhaps labored under some peculiar disadvantages: but other practitioners have given much more favorable reports of the events of cases, in which they have made trial of the effect of a residence in this climate; and if we may be allowed to draw any inference from the qualities of a climate, as indicated either by the thermometer, or by its effects on the constitutions of the inhabitants, there can be little doubt that a residence in Bermudas, in a temperate and sheltered part of Jamaica, or in some other of the West-India islands, together with the equable qualities of the sea air, to which the patient must be exposed during the voyage, must present every advantage towards the recovery of a consumptive person, that climate alone can possibly bestow.

In other diseases, the effects of climate are perhaps less exclusively beneficial; although it appears that gouty persons often derive considerable benefit from a residence in the hottest countries, as in the East Indies, or at Ceylon in particular. Dr. Gregory seems to be persuaded that life may be lengthened, and the inconveniences of old age retarded or mitigated, by repeated emigrations into warmer and warmer climates, after the age of 50 or 60, according to circumstances: and he thinks that even posterity may be benefited by an emigration of this kind.

In whatever situation the residence of an invalid may be fixed, it is of no small importance that the aspect and exposure of the house, which he occupies, should be selected with a view to the qualities of climate which he is desirous

of obtaining. We have an illustration of the truth of this remark, in an observation recorded by Dr. Carrick, respecting the influenza of 1803. "One of the most open and exposed of the buildings on Clifton-hill is Richmond-terrace, which forms three sides of a parallelogram, fronting respectively the east, south, and west; on the east side, not one family, and scarcely an individual, escaped the complaint; while on the south side, a great majority, both of persons and families, in all other respects similarly circumstanced, escaped it entirely." Such facts as these are among the few which afford solid grounds for medical reasoning; and they deserve the more attention, as they relate to circumstances of continual occurrence, and of perpetual influence on our health and comfort; and in proportion as both the medical and the meteorological sciences become founded on a firmer basis, it cannot be doubted that their beneficial effects will be more and more experienced, as well in the preservation of health, as in the treatment and cure of diseases.

TABLE OF THE ANNUAL MORTALITY

Of the different Counties of Great Britain, according to the Returns of 1811.

Middlesex	1 in 36	Berks	1 in 53
Kent	41	Flint	53
Warwick	42	Glamorgan	53
Cambridge	44	Northumberland	53
Essex	44	Rutland	53
Surry	45	Suffolk	53
York, E. R.	47	Brecon	54
Huntingdon	48	Cumberland	54
Lancaster	48	Westmoreland	54
Buckingham	49	Wilts	54
Southampton	49	Hertford	55
Mean of England	49	Oxford	55
Chester	50	Sussex	55
Durham	50	Bedford	56
Norfolk	50	Derby	56
Lincoln	51	Radnor	56
York, N. R.	51	Dorset	57
York, W. R.	51	Leicester	57
Denbigh	52	Salop	57
Nottingham	52	Devon	58
Northampton	52	Hereford	58
Somerset	52	Mean of Wales	60
Stafford	52	Gloucester	61
Worcester	52	Carmarthen	62
		Cornwall	

Cornwall 1 in 62	Pembroke 1 in 64
Merioneth 62	Carnarvon 67
Montgomery 63	Anglesey 72
Monmouth 64	Cardigan 73

It is obvious, that those counties which contain large manufacturing towns exhibit a mortality wholly independent of their climate, as is exemplified in the case of Warwickshire; while the natural salubrity of others, for instance, Cornwall, is probably rendered more conspicuous by their exemption from sedentary employments.—*Dr. Young's Introduction to Medical Literature.*

CRITICAL ANALYSIS OF RECENT PUBLICATIONS

IN THE

DIFFERENT BRANCHES OF PHYSIC, SURGERY, AND
MEDICAL PHILOSOPHY.

A Treatise on the Diseases and Organic Lesions of the Heart and Great Vessels. By J. N. CORVISART, M.D. &c. &c. &c. Translated from the French, by C. H. HEBB, Member of the Royal College of Surgeons in London. 8vo. pp. 404. Underwood and Blacks. 1813.

AS the French edition of this work cannot pass through many hands, we congratulate the reading part of the profession on the appearance of this translation, which, as far as we can judge, is faithful. The subject on which this volume treats is of deep importance, yet few writers have attempted it; hitherto, perhaps, the work of Senac may be regarded as the best, although many other authors have described affections of the organ; and recently an excellent treatise has been published by Mr. Burns, which, if not so complete as Corvisart's, contains much valuable information.

The present work is divided into five classes, which comprehend nearly all the diseases to which the heart, its coverings, and appendages, are liable.

The first class comprises the diseases of the membranous coverings of the heart.

The second, diseases of its muscular substance.

The third, diseases of its fibrous or tendinous tissue.

The fourth, of those diseases which, at one and the same time, affect many tissues of the organ, and of those unnatural states which may be considered as so many organic lesions of the heart.

The

The fifth treats of *aneurism of the aorta*.

In a preliminary discourse of considerable length, the author, with an animation, zeal, and eloquence, worthy of this subject, touches upon the necessity and advantages of the physician being minutely acquainted with anatomy—not from a barren curiosity to seek out singular appearances in the dead subject; not merely to inform himself of the names, form, and actual situation, of different organs; but to enable himself to distinguish diseases by certain signs, and not doubtful symptoms; always bearing in mind, that “the more minute anatomy is cultivated by physicians, the sooner will they be enabled by just observations to ascertain and prove the existence of a great number of organic lesions, of which most of them had not the slightest suspicion.”

To the want of this knowledge combined with that of physiology, the learned author attributes much of that wavering, indecisive practice, and false diagnosis, which physicians often display at the bed-side; some accusing the liver, or the stomach, of derangement, when the complaint was in the chest; others mistaking a disease of the heart for asthma or dropsy; in short, no organ escaping their misapprehension.

But the physician must not rest content with mere anatomical knowledge, he must make himself master of the secret springs and working of the heart, and penetrate the veil which conceals the philosophy of mind. “Where, (says Corvisart,) may we exclaim, shall we find so clear-sighted a physician? No where, I readily admit; but I am not, on that account, the less fully convinced, that one of those qualities on which the *tact* of a great physician is firmly established, consists in that penetration, incessantly strengthened by exercise, which enables him to perceive in any given patient, the scene of his moral affections, while he observes all the physical phenomena which produce or which result from them.”

While we admit the justice of these and other similar remarks of this author, for we cannot insert many of them, we may hint that they are perhaps more applicable to the French school of physic than to our own; though, in these our times, a great change has taken place in the education of physicians in France. Formerly, we find hardly a satirist or novelist who did not make them his especial butt; Boileau, Moliere, Rousseau, and a large fry of smaller writers, had exercised their wit so effectually on this unhappy tribe of men, that ridicule and physic were inseparable. In this country, however, satire has hitherto been very harmless, and has chiefly fallen upon some impudent pretender or hardened empiric. But let us
not

not boast, the French school is now a powerful rival to any that we can produce. Some of the best works upon anatomy, physiology, practical medicine, and chemistry, have issued from it. French physicians are emulous to cultivate general science, and are encouraged by honors, titles, and adequate remuneration for their labors, to assume that high rank in society which becomes their profession. The curious experimenter, besides the gratification of adding to the general stock of knowledge, obtains the notice of the world by his researches being recorded in the *Memoirs of the Imperial Institute*; chemistry opens a certain channel to rank and wealth; the great demand for skilful surgeons in an army constantly inspected by its active chief, insures their production; while peaceable men, disgusted with continued bloodshed and rapine, honor and esteem physicians whose labors tend to correct the evils and afflictions incident to human nature, and fearfully augmented by the ambition or the folly of rulers,

“Quales ex humili magna ad fastigia rerum
Extollit, quoties voluit fortuna jocari.”

The first disease noticed by our author is Pericarditis, which he regards as an inflammation of the whole or of a part of the serous membrane which immediately invests and closely adheres to the heart in every part, and furnishes the loose bag in which it is contained. It appears in two forms, acute and chronic. Acute inflammation of the pericardium is not always easily distinguished. “Pleuripneumonia is generally complicated with it, and it is frequently very difficult to say which first appeared, or whether their commencement was not simultaneous.” The author confesses he has not met with a pure case of acute pericarditis; of course, those which he cites are more or less complicated with other diseases; but as these appear to be chiefly pleuritis, peripneumonia, and paraphrenitis, it is of less consequence, as the only hope of cure in either of them, pure or combined, must rest on early and copious bleeding.

The author has described a variety of the disease under the term sub-pericarditis, a case of which we here insert.

“On the 9th of January, 1799, a man, aged forty years, received a blow by the fist on the region of the heart. On the 25th of the same month, violent febrile symptoms, accompanied by oppression and pain under the left part of the sternum, suddenly took place: during the three first days these symptoms increased so much, that on the 30th he made up his mind to become a patient in the Clinical Ward of the Hospital; the best marked inflammatory symptoms had then disappeared without any visible advantage: he complained only of a slight pain in the head, and a continual and indescribable anxiety,
which

which left him not a moment's ease ; the skin was dry and hot, the pulse small, frequent, unequal, intermittent, and irregular ; the eyes were sunk ; the features much changed ; the left cheek was very red ; the mouth tolerably clean. The sound, by percussion, was very obscure throughout the left side. The breathing, apparently easy, was, nevertheless, on close observation, short, frequent, and a little interrupted ; the cough dry and not painful ; the patient, notwithstanding, complained of a pain which extended from the posterior part of the sternum to the left side, and to the lower part of the right side of the chest ; there were momentary sinkings, which did not amount to fainting. The stools were few, the urine was turbid and deposited a sediment. On the first day I ordered one bleeding ; but I did not persevere in this plan, on account of the advanced stage of the disease. From the 30th of January, it was evident that the disease made a rapid progress ; the countenance became more and more *hippocratic* ; the patient had not a moment's quiet ; the breathing was continually interrupted and very difficult ; the pulse vacillating, and scarcely perceptible ; the prostration of strength extreme, notwithstanding the use of cordials. He remained in this state for the ten first days he was in the hospital ; the only remarkable phenomenon during that time, was a spontaneous and almost sudden dissolution of the right eye, from a suppuration which took place in it without being preceded or attended by any inflammatory symptoms. After these ten days, the disease appeared still to advance more rapidly. The features became entirely changed, the pulse imperceptible, the debility extreme, even unto fainting. This patient finally sunk on the nineteenth day of his admission into the hospital, and on the twenty-fourth of his disease.

" I sought in the cranium the cause of the sudden destruction of the right eye ; but the brain, the thalami nervorum opticorum, and the optic nerves themselves were perfectly sound.

" The pericardium was so enormously enlarged as to contain near four pints of seropurulent fluid ; its inner surface was throughout covered with a thick crust of albuminous matter, the superficies of which was reticulated and *curdled* ; an appearance of which one cannot give a better idea, than by comparing it to the inner surface of the bonnet, or second stomach of a calf, except that, in this case, the depth of this kind of net-work was not so great.

" The heart was not altered in size ; but the leaf of the pericardium which covers it, was firmer and more than two lines thick. The fleshy fibres were not sensibly altered. The left lung, pushed upwards, was spongy and crepitous ; the right lung was sound.

" That part of the diaphragm which unites with the pericardium was not inflamed."

The author attributes the freedom from complication in this case, to the exciting cause being external and circumscribed. He also thinks that if antiphlogistic means had been actively employed in the beginning, they might have moderated, and perhaps subdued, the inflammation.

The chronic form of pericarditis is complicated and obscure,

secure, and Corvisart has afforded us no additional knowledge upon the subject. The treatment he recommends in all forms of the complaint, is such as is most generally pursued by sensible practitioners.

Adhesion of the pericardium to the heart, is a frequent consequence of pericarditis; from whatever cause it is produced, Corvisart states that it may take place in three ways. 1. From interposition of the lymphatic exudation thrown out by the inflamed pericardium. 2d. From rheumatic and gouty affections. 3d. "It is sometimes owing to numerous cellular filaments, the length of which varies from seven or eight lines to the smallest possible." "The adhesion of the pericardium to the heart, in this last case, and sometimes in the second, does not constitute a real disease; it merely puts the patient into a state of insupportable inconvenience." In partial adhesion the function of the heart is not sensibly injured; but when the adhesion is complete, the author thinks that death must inevitably take place, though not immediately. The following is a case in point:

"A man, forty years of age, felt a very violent pain in the epigastric region. This pain was accompanied by weak but frequent palpitations, and great difficulty in breathing. The pulse was small, quick, and irregular; and on applying the hand to the region of the heart, it appeared to beat with irregularity. From time to time the pain, the difficulty of breathing, the palpitations, and indeed all the symptoms, were greatly aggravated. In one of these paroxysms, which occurred after short intervals, an ecchymosis took place about the eye-lids of the right eye, the ball of which became inflamed.

"Although the number and severity of these symptoms gave great reason to fear for the life of the patient, he was, nevertheless, enabled by the antiphlogistic treatment, and the use of emollients and antispasmodics, to resume his usual occupations. He continued in health for forty days, when he became a patient in the Clinical Ward. To the symptoms before described, were now added ascites, and frequent paroxysms of fever. The quantity of water was so great as to render tapping necessary, but this was employed only as a palliative; in effect, the water again collected; the patient complained of continual pains in various parts of the belly, but principally at the bottom of the right iliac region. The pulse was constantly very weak, the sleep trifling, and the left side of the chest did not sound on percussion. The strength diminished daily, notwithstanding the use of cordials. In fine, eight months after the first illness which I have mentioned, the patient passed quietly from life to death, a few minutes after he had gone to bed, where he was thought to be sleeping.

"In the course of this person's first complaint, I had announced the existence of an organic lesion of the heart. My diagnostic became more precise long before his death, and I thought I could pronounce that there was an adhesion of the pericardium to that viscus. On opening the body I found a considerable quantity of water in the

left cavity of the chest; the pericardium adhered externally to the lungs, and internally to the heart, its adhesion to which was so strong, that they could not be separated without a most careful dissection. The blood was accumulated in the right cavities of the heart and in the venæ cavæ, so as to distend them to an extraordinary size; the other parts of this organ were in a natural state. The blood, in all these cavities, had a remarkable fluidity. The muscular fibres of the heart were generally very pale, and their action must have been reduced to almost nothing for some time before death, which, perhaps, may have been the immediate cause of that event. The left lung, pushed up towards the superior part of the chest, was hardened; the right was in a tolerably good state.

"The cavity of the abdomen contained a good deal of bloody serum; the alimentary canal was contracted, and altered externally; almost the whole of the peritoneum was covered with granulations."

Besides the symptoms already detailed, in some cases of adhesion of the pericardium others have been frequently observed. In many instances, sudden flushing of the countenance; a painful sensation of pulling in the region of the heart; the breathing quick, and oppressed on the slightest motion, and faintings; with a pulse more or less irregular. In distinguishing this complaint from other affections of the organ, the author places great confidence in the absence of palpitation; for how, he asks, can the heart, when closely connected with the diaphragm by its membranous covering, perform violent and tumultuous movement, all change of position being nearly prevented by the adhesion? "The contractions of the heart are, in this case, quick and disordered, but dull and deep, weak, obscure, and imperfect." The complaint, however, is always difficult to be ascertained, especially when combined with other affections of the heart or chest; and complete adhesion has been discovered by dissection, when during life such an affection was not indicated by a single symptom.

Among several cases cited by the author to illustrate this disease, is one of an apothecary's assistant, who had long appeared dejected, and at length committed suicide. In this case the pericardium had formed adhesions for the space of about two inches in diameter round the apex of the heart, which appeared of long standing.

Chapter II. on Hydro-pericardium, though not devoid of interest, does not claim our peculiar attention.

In the Second Class, which treats of diseases of the muscular substance of the heart, Aneurism, which is here synonymous with dilatation of the heart, holds a conspicuous rank, and occupies much space; we shall however pass it over in our analysis, because, from the labors of our own surgeons and anatomists, we are perhaps better acquainted with this than

than some other diseases of the organ which we shall have occasion to notice.

In the fourth chapter, upon *Induration of the muscular Tissue of the Heart*, some interesting cases are detailed. We extract one from section 2. "Of the Conversion of the muscular Tissue of the Heart into a cartilaginous or osseous Substance."

"A man, aged 64 years, had always enjoyed good health until the beginning of the summer of 1798. At this time he was attacked with a disease of the chest, for which he was bled seven times, and which, on his recovery, left him in a state of the greatest debility.

"Fourteen months after the cure of this acute disease, he was seized with difficulty of breathing, with violent stiflings, which had existed for about two months when he came into the Hospital. Six days before his entrance, the stiflings had become so violent, that, on the slightest motion, he was in danger of suffocation. He said he had not had palpitations. His pulse, scarcely perceptible in either wrist, was small, concentrated, and irregularly intermittent; it might be said to be suspended for two or three pulsations: on placing the hand on the region of the heart, it was felt to beat with great violence, which by no means corresponded with the state of the pulse. The chest sounded well, except in this region and towards the posterior and right side of that cavity, which had been the seat of the peripneumony. The legs were rather clammy than œdematous. He often awoke from sleep with starting.

"Though convinced of the existence of an organic lesion of the heart, I felt much difficulty in deciding upon its nature. I was most disposed to consider it as an aneurism of that organ, complicated with the contraction of some aperture.

"The prognostic appeared to me of the most melancholy kind. However, diuretics procured sensible relief for two months. The breathing became easier, the pulse more free and regular, and less intermittent; but towards the beginning of April, 1800, he became worse than ever. The pulse resumed its old characters. The breathing became suffocating, and the urine less in quantity. The legs again began to swell. The œdema made an alarming progress in a short time, and the patient died without agony on the 17th of April, eighteen months after the disease of the chest, and two months after his admission into the Hospital.

"At the time of opening the body, the face, and particularly the lips, were of a violet and blackish color.

"The lungs, in other respects sound, had contracted slight adhesions to the costal pleura.

"The size of the heart was much greater than usual,

"The right auricle and ventricle were much expanded, and their communicating aperture was evidently in a state of dilatation. The left auricle, too, was very large, and its aperture of communication dilated; the mitral valves were become cartilaginous.

"The sides of the left ventricle were at least an inch thick, and very solid; the apex of the heart to a certain height and throughout

its substance, was cartilaginous; the columnæ carneæ of this ventricle had also acquired a remarkable hardness approaching to that of cartilage, of which they had the physical characters."

In the fifth section the author treats of the conversion of the muscular tissue of the heart into a fatty substance. Haller, and Vicq. d'Azyr, with many other writers, have described the change of the muscles into a fatty substance, and certain modern anatomists have averred the same of the heart; but Corvisart, without denying the possibility of the fact, declares that he has not met with such an occurrence. Our readers will be aware that he does not mean those cases in which the heart is encumbered and loaded with fat, which is not an uncommon event.

The chapter on the induration or ossification of fibrous parts, contains much interesting matter. As a specimen we select a case of *Contraction of the left Auriculo-ventricular Aperture*.

"A blacksmith, aged 20 years, of a very robust constitution and of a sanguineous temperament, came into the Hospital of la Charité on the 4th of June, 1792. He came there, he said, on account of a dysentery with which he had been attacked in the winter, and which had caused him to lose much blood by stool. He never had had any other complaint, but he was subject to nasal hæmorrhages, to which he observed all his family were liable.

"For the last ten or eleven months he had been unable to take any violent exercise without experiencing some pain in the chest, and strong pulsations in the region of the heart. The nasal hæmorrhages had ceased for three months before he came into the Hospital. The palpitations, then more frequent, became also more violent, but still without being excessively distressing. He came to the Hospital for his pretended dysentery, and did not at all complain of the above-mentioned symptoms, which he only acknowledged on being interrogated.

"As soon as I saw the patient, I suspected an organic lesion of the heart, and two days after I announced its existence in one of my private clinical conferences. Here follows what was most remarkable.

"On placing the hand on the region of the heart, strong, quick, and very irregular palpitations were felt. The patient could not lie on his back, in consequence of its producing a sense of threatening suffocation: he lay tolerably comfortably on the left side, but often awoke with startings, and said that he felt, while sleeping, violent blows on his body. The pulse was irregular, frequent, hard, weak, and rebounding: it had very irregular intermissions, and was altogether so variable, that it is difficult to convey a correct idea of it.

"This disease once recognized, the intensity of the symptoms readily enabled me to point out the prognostic: it was inevitable death. I omit giving a detailed account of the treatment, which consisted

isted in small bleedings, mild diuretics, antispasmodics, and other palliatives, the inutility of which I had before pronounced.

"The symptoms soon made a very rapid progress, and the patient was convinced, from his own feelings, that he carried in his breast the cause of death. The sense of suffocation, which had existed for some time, became more and more alarming, the lower extremities began to swell considerably; a violent delirium came on, which lasted for near twenty-four hours; an excessive coldness of the limbs took place, and the patient died on the 29th of June, twenty-five days after his admission.

"The body was generally œdematous. There was a slight effusion in the cavities of the chest. The lungs were sound; the pericardium contained a little water. The heart was very voluminous, and all its cavities were gorged with blood.

"The right auricle and ventricle were in a natural state, except that they were enlarged, as was their aperture of communication. The left auricle was also dilated: its opening into the left ventricle was exceedingly contracted, and formed a kind of osseous slit, through which a thin coin could scarcely have passed; the part of the mitral valve which adapts itself to the orifice of the aorta, fitted but very irregularly.

"The large vessels were in a natural state.

"The organic derangement which I have described, was evidently the cause of the increased volume of the heart, and of death.

"It is clear that the disease of which the patient complained was not dysentery, but only an effect of sanguineous plethora, determined more particularly to the venous system of the lower belly. This may easily be explained; the left cavities of the heart, not properly emptying themselves, the right could not become unloaded; the blood, therefore, from the *venæ cavæ* accumulated; and hence arose the sanguineous distention of the liver, so frequent in diseases of the heart, as also the hypogastric venous plethora, and the intestinal hæmorrhage, but not *dysentery*.

"The temperament of the patient was sanguineous to an excess; it was that of all his family; he was subject to nasal hæmorrhage; ten or eleven months before his death, he could not move without bringing on palpitations. The bleeding at the nose ceased, the palpitations increased, and the intestinal hæmorrhage came on. Is any thing more necessary to prove, that this disease was not *dysentery*? It was also unaccompanied by intestinal pains, tenesmus, or any other symptoms of this affection."

Contraction of the right auriculo-ventricular aperture from cartilaginous or osseous induration, is rare. In the case stated by Corvisart of a man aged 60, the chief symptoms were bloatedness and violet hue of the face, lips, and neck; extreme difficulty of breathing; beating of the heart diffused and irregular; the pulse irregular, and not isochronous with the pulsation of the heart; confusion of ideas followed by drowsiness succeeded; the pulse sunk.

At the time of opening the body, the face was violet and blackish;

blackish; the lungs adhered on every side to the internal surface of the parietes of the chest. The right auricle was much enlarged; the tricuspid and mitral valves were cartilaginous, which diminished the diameter of each orifice; the pericardium contained some water; the dilated aorta had some ossified points on its internal membrane.

Two sections follow upon the cartilaginous or osseous induration of the auriculo-ventricular valves; and of the semilunar and sigmoid valves; lesions to which the heart is very subject, and which may partially exist without much inconvenience being experienced. They sometimes, however, prove fatal.

"A washerwoman, aged 76 years, was admitted on the 14th of May, 1803, into the Clinical Ward. This woman had never had good health; at the age of 67 years, she experienced so much difficulty in walking, that she was often obliged suddenly to stop. This first symptom was accompanied by palpitations. Her complaint did not become alarming for eighteen months after. At this time her extremities were so anasaruous, that she was obliged to give up work.

"When she came into the hospital, her countenance was livid, her eyes were watery; the lower extremities, the arms, the hands, and the parietes of the abdomen, anasaruous. She had frequent nausea; her breathing was high, short, and interrupted; the palpitations were frequent; the chest, when struck, did not sound in the region of the heart; the pulse was quick, rather weak, and irregular. These symptoms were sufficient to point out the organ affected, and the danger of the disease.

"Thirteen days after her entrance into the hospital, this woman, whose disease during that time had made a rapid progress, died as if suffocated.

"The face, in this subject, was unequally black and livid; the brain in a healthy state; the lungs were flabby and anasaruous; and there was a small quantity of water in the two pleuras. The pericardium contained about half a pint of serum; the heart was not much enlarged beyond its natural size.

"The right ventricle was soft and flabby to the touch, as it usually is. The left, on the contrary, resisted pressure, with so much force and elasticity, that its parietes immediately returned to the state in which they were before they were compressed. The substance of this ventricle was so firm, that it preserved almost a cylindrical shape. A portion of this cylinder was covered by the pericardium; and the other part, forming the septum, projected into the right ventricle, the cavity of which it in a great degree occupied. Its fleshy parietes were fifteen lines thick.

"The left ventricular aperture was studded with many sharp and osseous points, which, uniting near the septum, formed a substance of considerable size. The mitral valves were indurated only where they came into contact with the partly osseous circle of the ventricular orifice.

orifice. The mouth of the aorta did not appear contracted, but the semi-lunar valves, by their arrangement, nearly closed up its area.

"These valves were not only indurated and ossified, but much thickened by the calcareous matter which was deposited between the two membranous folds which form them. Their osseous hardness kept them in a sunk and immoveable state. Their free edges approached so as to touch each other, and almost entirely to obliterate the area of the vessel. Had not the base of one of these valves, although ossified and thickened, preserved sufficient pliability to perform a kind of see-saw motion, which augmented, by a line or two at most, the opening for the passage of the blood, it would have had to pass out of this ventricle by an excessively narrow slit.

"The right ventricle was in a natural state. The auricles were not enlarged, but their parietes were so weak that in many places they were transparent, and tore, with the greatest ease, on separating them circularly from the base of the ventricle. All the cavities of the heart were distended with black blood, partly fluid and partly coagulated."

The chapter on Excrescences of the Auriculo-ventricular and Semilunar Valves, contains some interesting cases, and practical observations.

The Fourth Class of our author's arrangement comprehends *Diseases which affect at the same time several Tissues of the Heart*. Carditis is the head of the first section. This formidable disease, it seems, is less known than its importance would lead us to suppose: in many instances it exists where not suspected, and Corvisart has therefore divided it into *occult*, and *manifest*. The cases of the former adduced by the author are too valuable to be omitted, although our extracts have already been numerous.

"A cleaner of shoes, aged 67 years, of a sanguineous temperament, had for thirty years been subject to a distressing dyspnœa, and frequent colds, but had never felt palpitations.

"On the 24th of April, 1803, the breathing being more than usually difficult, he felt a slight pain in the middle and interior part of the left side of the chest; two days after he spat blood, and on the 29th was admitted into the Clinical Ward. He had then a little pain in his head; his countenance was animated; his eyes brilliant; his tongue whitish; the breathing a little difficult, with wandering pains in the chest, but no palpitations. His pulse was weak, irregular, intermittent, and not the same in each wrist. On the following day, the respiration was more difficult, noisy, and rattling; the pain in the chest had greatly increased; he had delirium, and talked much. In the morning he got up several times to the window to breathe; he did the same at mid-day, lay down and died unexpectedly on the 7th day of the disease.

"The pain in the chest, the difficulty in breathing, and the external examination, had, from the second day, convinced me of the existence of peripneumony; the brilliant eye, the talkativeness, the seat of the

pain, and the characters of the pulse, indicated to me that the inflammation had extended to the heart, without leading me to suspect any particular derangement in the texture of that organ.

"At the time of opening the body, the countenance was unequally livid and violet, and the subcutaneous veins was gorged with blood. The brain was in a good state.

"The right lung, throughout adherent to the pleura, was flabby, very extensible and œdematous. The left lung was covered throughout a great part of its surface, particularly near the pericardium, with a pseudo-membranous crust several lines thick. The costal pleura of this side appeared to have been the seat of inflammation.

"The pericardium contained about a pint of a purulent and flaky fluid; its internal surface was covered with a membranous-like substance, the superficies of which had numerous elevated points upon it.

"The heart, of the natural size, was soft and flabby. The fleshy parietes of the ventricles and auricles were of a pale yellow; a fatty substance might be said to be deposited between their fleshy fibres, which seemed separated from each other. A vascular kind of network was perceptible upon the surface, and even on the interior substance of the fleshy parietes of the heart. By gently pressing the fleshy substance between the fingers, it was easily reduced to the consistence of a pap, and of a dull pale color. All the cavities of the heart contained polypiform concretions, which extended even into the cavities of the vessels.

"The abdominal viscera were all sound.

"To this fact, and which I will call obscure acute carditis, I will add two others perfectly analogous, and in which the diagnostic was as obscure as the pathological state was evident on opening the body.

"A young person came into the Clinical Ward, laboring under a disease of the chest, with a pale and wan countenance, and œdematous legs; she coughed much, and had a puriform expectoration. Finding little relief from the medicines which she took, she quitted the hospital.

"She soon returned, and the same means were again employed, as I still entertained the idea that it was a pulmonary affection: but, on a more careful examination, I observed that she had constantly a small pulse; and the lips being bloated and violet, a symptom not common in pure phthisis, I used percussion with more care, and found that the chest, which sounded well on the right side, gave no sound on the left. This, and several other symptoms, made me think that the left cavity was full of liquid. The belly was so distended with water, that I ordered paracentesis, which gave vent to a considerable quantity; but the patient died in a few days.

"On opening the body, the pericardium was distended with a purulent fluid. The surface of the heart was covered with a layer of lymphatic matter; the heart itself was small, contracted, soft and pale, even in the interior of its substance. The interior surface of the pleura was only affected on the right side."

"A woman was received into the Clinical Ward. She had ascites, for which she received the usual treatment; was tapped several times, without finding more relief than is usually experienced

in

in similar cases. Although the symptoms were exceedingly obscure, I had an idea that they might arise from an affection of the heart. The smallness, weakness, irregularity, and peculiarity of the pulse, gave rise to this idea. This patient died; and I found, on opening the body, the pericardium much distended with a lactescent and puriform liquid. The heart was whitish, small, as if retracted, without consistence, and quite misshapen. The auricles, ventricles, and great vessels, were surrounded by a white lymphatic substance.

"This woman had been ill for seven or eight months; but the true nature of her complaint had never been suspected: yet the appearances, on opening the body, left no doubt of the early existence of carditis, which had degenerated into chronic inflammation of the heart, the symptoms of which were obscured by the dropsy, consecutive, doubtless, upon the affection of that organ."

Acute carditis, according to Corvisart's own experience, never occurs without complication; but he does not appear to have seen many instances of the disease. It may terminate by suppuration, by gangrene, and by ulcers.

The second section treats of *Rupture of the Heart*. This accident may be either complete or partial: in the one case, the parietes from the interior to the exterior surface burst, and the blood is effused into the cavity of the pericardium; in the other, only a portion of the substance of the heart is affected. Complete rupture of the heart is a rare event; the ingenious translator has reminded us that George the Second died of this complaint, and has given Dr. Smollett's concise account of the circumstance. Under partial rupture of the heart, the author includes the rupture of one of the *carneæ columnæ*, on the internal surface of the ventricles; and "the rupture of the *chordæ tendineæ*, which, rising from those pillars, are attached to the floating extremities of the valves." This affection has been noticed, and the probability of its occurrence testified by Haller, Morgagni, Senac, and other writers; but very few cases of it have been recorded, and none so distinctly as those related by Corvisart.

"A man, aged 20 years, of a vigorous constitution, was admitted into the Hospital of la Charité, at an early period of the French revolution. For some time he had quitted a sedentary trade to become a messenger: devoted to this very laborious life, he travelled incessantly to every court in Europe. When he came into the hospital, he had been travelling a thousand leagues on horseback, without taking repose: he had, besides, taken a journey from London to Paris; and, in passing from Dover to Calais, he had experienced, for the first time, difficulty in breathing, and a spitting of blood; having, notwithstanding these symptoms, continued his journey, the disease had much increased, and by the time he had reached Paris, was accompanied by pain in the chest. He had been bled five times during the three days he had kept at home, but finding no relief from the bleed-

ings and other treatment which had been deemed necessary, he came to the hospital eight days after the commencement of the disease.

"The features of the face were then much altered, and the extremities slightly œdematous; the pulse was small, hard, very frequent, and rather irregular. On applying the hand to the region of the heart, besides the very strong pulsations of that organ, confused and irregular beatings were felt, not at all resembling its natural movements. The patient could not continue long lying, standing, or sitting, and was in a state of anxiety and agitation not to be described.

"His legs and thighs swelled the day after his entrance, and his features became still more changed. During the following night, the symptoms increased: he was dreadfully agitated, walking into the other wards, sitting down, incessantly rising, but still preserving his mental faculties. The sense of suffocation now becoming highly alarming, this unfortunate man was convinced of the danger of his situation, and abandoned himself to the most violent despair: he died, testifying by all his gestures the regret he felt at quitting life.

"I repeated, before I opened the body, what I had announced on the first day, that there existed in this patient an acute lesion of the heart, and probably a rupture or laceration of some part of it.

"The left lung was sound; the right had contracted slight adhesions to the costal pleura; its upper lobe was very firm, but without tubercles; in the ridges which separate the different lobes, there was a lymphatic coat, produced by the consecutive inflammation of which this organ had evidently been the seat. There was a quantity of water in the chest.

"The pericardium contained about half a pint of yellowish serum: The heart had not acquired an extraordinary size. One of the large columnæ which support the mitral valves of the left ventricle, had ruptured at its base, so that it floated loosely in that cavity; there was an appearance of suppuration at that point of the heart where the rupture had occurred, proving that it was not of long standing. Near the rent there was a clot of blood covered with purulent matter, which came from the torn part."

"A turner, aged 34 years, of a strong constitution, and of an irritable and violent temper, gave himself, in endeavouring to move a tun of brandy, to use his own words, a *twist of the reins*, which immediately caused a sense of suffocation and an acute pain between the shoulders: soon afterwards, cough, palpitations of the heart, and frequent startings in his sleep, took place. These alarming symptoms, far from yielding to the remedies used, and becoming every day worse, he went to the Hospital of la Charité, where, during his first residence, he received much relief. He quitted it, but returned in four months, when nearly two years had elapsed since the violent exertion which appeared to have produced the disease.

"On the 24th of March, 1803, the day on which he came into the Clinical Ward, this patient was in a state of extreme anxiety; his breathing was suffocative; and he felt acute pains in the region of the heart, which forced him to cry out, particularly during the night. He died in two days.

"On opening the body, I found, in the right cavity of the chest,
four

four pints of serum. The lungs of this side were sound. The left thoracic cavity contained but little water.

"On the fore part of the mediastinum there was a small purulent spot of the size of a sixpence, without any alteration of the cartilage of that side, to which this kind of ulceration corresponded. The heart, with its capsule, was three times its natural size.

"On the exterior surface of the pericardium, there were a number of excrescences, shaped like a cock's-comb, pale and livid at the base, but of a deep red at their summit: they were nothing but portions of fat which had undergone a peculiar kind of change. This membranous capsule adhered to the heart by means of a firm fatty substance.

"All the cavities of the heart were dilated, and contained much black and coagulated blood.

"The right auricle was so much dilated, that its auricular appendix had entirely disappeared; the right auriculo-ventricular aperture was also much dilated, and the ventricle slightly so; the tricuspid valves, and those of the pulmonary artery, were in a good state.

"The left auricle and ventricle had much increased in volume. The parietes of the ventricle were thickened, and the mitral valves studded with several soft and fleshy-like excrescences.

"On examining the tendons of the fleshy pillars which support these valves, two of them appeared to have been ruptured for some time. Their extremities were soft, smooth, and rounded at the ruptured part. The precise point of the edge of the valves to which they had been attached, could not be discerned.

"The valves of the aorta were not altered, but this artery was itself dilated at the beginning of its arch.

"There was some water in the abdomen; the viscera of this cavity were sound."

The third Section, upon *Tumors of the Heart and other unnatural States of that Organ*, contains some valuable and interesting facts both from the author's own experience and that of other writers. The following case of *Perforation of the Septum of the Ventricles* is very curious, and deserving of attention.

"A child, aged 12 years and an half, was admitted, on the 21st of April, 1797, into the Clinical Ward. He was then in so dreadful a state, that there was reason to think he could not live many days. His complaint, according to his own account, had not existed for more than five months; but, from the violent and repeated palpitations which he had always experienced, it was not unreasonable to suppose, that the disease was of much longer date.

"When this boy was admitted into the Hospital, his face was bloated and his lips were violet; there was no œdema in either the upper or lower extremities; the respiration was much impeded; the hand, placed upon the region of the heart, felt an irregular beating, accompanied by a very remarkable rustling. The pulse was, nevertheless, very regular, but small, weak, and easily suppressed. The palpitations were frequent, and came by paroxysms, accompanied by

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threatening

threatening suffocation. The patient could not lie down: he was better when sitting upright, and still more so when inclining forward. He made water frequently, and in proper quantity.

"During his short stay at the hospital, his disease made an alarming progress. He was put under a course of diuretics and powerful antispasmodics, but they procured, as had been foreseen, no relief.

"On the 24th he had a fit of suffocation, stronger than any which had preceded it, and which threatened to terminate his existence; but this paroxysm went off, and the patient, some moments after, found himself better than he had been for a long time. However, more alarming symptoms soon returned, and he died on the 25th, after an agony of from ten to twelve hours, during which his body was covered with a cold sweat, and a yellowish froth dribbled from his mouth,

"On opening his body, the lungs, except being rather flabby, were in a healthy state. The pericardium contained a small quantity of water.

"The heart was much enlarged, and appeared rather to belong to a large and full-grown man, than to so young a child. There was nothing remarkable in the auricles but their increased size.

"The parietes of the right ventricle were thicker than usual. The septum had preserved its natural thickness, but there was a round hole in it, near the spot where the pulmonary artery takes its rise, large enough to admit the extremity of the little finger. This opening communicated with the cavity of the left ventricle; its edges were smooth and whitish throughout. At the upper part of the margin of this aperture, there were two little fleshy tubercles, of a reddish color.

"The parietes of the left ventricle had preserved their natural thickness. In the cavity of this ventricle, just below one of the sigmoid valves of the aorta, the opening of the hole I have been speaking of, could be perceived. The aortic semi-lunar valve, beneath which it was situated, was corroded, and in part destroyed. It formed a kind of little fringe, which presented itself at the orifice of communication without entirely closing it; so that the blood, propelled from the left ventricle into the aorta, could, when this ventricle ceased to act, flow back, on account of the destruction of the sigmoid valve, into the right ventricle, by passing through this unnatural opening, the direction of which, however, appeared to be from the right towards the left ventricle.

"An important question, which, after the details of the case, and the examination of the body, seems still undecided, is, whether this opening existed from birth, or were accidentally formed by rupture or erosion. In the first case, it might be considered as a vicious conformation; in the second, it should be placed in the class of organic diseases. The smooth and tendinous-like nature of its edges favor the former opinion, while the erosion of one of the semi-lunar valves extending even to the margin of the opening, and the existence of the tubercles, incline one to embrace the latter."

Having far exceeded our usual limits, we must refer to
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the book itself for the fifth class, which treats of *Aneurism of the Aorta*, assuring our readers, however, that they will not be disappointed if they expect to find much useful information upon the subject. The volume terminates with some able corollaries from the diseases of which it treats.

On the whole, we have been highly gratified by the perusal of this work, which ought to be studied by all practitioners, for we think all might derive benefit from it. The translator appears (for we have not the original by us) to have executed his performance with care; and the language, though sufficiently grave for the English, is not devoid of the vivacity of the French idiom.

Some Account of Mary Thomas, of Tunnyralt, in Merionethshire, who has existed many years without taking Food; and of Ann Moore, commonly called the Fasting Woman of Tuthury. Accompanied with Portraits and illustrative Etchings. By JAMES WARD, Esq. R. A. Imp. folio; pp. 11, and seven plates; Lond. 1813.

THE case of Ann Moore of Tuthury, the woman who assumed the privilege of living without food, has been so much before the public, is so very generally known, and its fallacy has recently been so fully exposed, that we might be excused filling our pages with any further details on this subject, did not this elegant work, by Mr. Ward, demand from us an attention not due to the numerous herd of ephemeral pamphlets.

Mr. James Ward, an artist of great talent and deserved celebrity, having been called, in the course of his professional pursuits, into the neighbourhood of Ann Moore, made her several visits, and became convinced of the honesty and truth of her assertions. Impressed with this feeling, and looking upon her to be an extraordinary instance, perhaps, of a direct visitation from the Supreme Being, altering the accustomed course of the laws of Nature, for some inscrutable purpose, he investigated her history with minuteness, and examined her form and general external appearances with the eye of an artist. The result was the detail now before us, accompanied with two etched portraits, the value of which will probably deliver her history down to posterity, and record her imposition to future generations.

About the period of Mr. Ward's visits to Ann Moore, accident brought him acquainted with Mary Thomas, a poor Welchwoman of Merionethshire, whose history, resembling in some points that of Ann Moore, was still more extraordinary, because her morbid state was much severer, and had

been of longer duration, comprehending the greater portion of a century. The sketch he gives of this woman's strange history is accompanied also with etched portraits and engravings, illustrative of various interesting localities connected with that history.

From this narrative it appears, "that Mary Thomas has existed between seventy and eighty years, almost without food; and certainly, according to evidence that does not appear in any way objectionable, for ten whole years, without the least particle of nutriment of any kind or form passing her lips, and without showing any sensibility or knowledge of external events; and has had, in that time, no excrementitious discharges from the intestines or urinary bladder. In 1812 this woman was still living; and, from the extraordinary tenacity to life which she evidently possesses, under circumstances that would have abridged the days of any other human creature, though now 80 years old, she may, perhaps, long enough survive to have her history more explicitly detailed, and the facts connected with her peculiar state decidedly unfolded."

This expectation has, however, been defeated by the death of Mary Thomas this year.

On inquiring into the history of Mary Thomas, a fact has arisen of some importance. Mr. Pennant, whose reputation for every thing excellent is still fresh in our minds, saw Mary Thomas in the year 1770; and his relation agrees so much with Mr. Ward's, that they mutually support each other, and give a degree of credibility to an otherwise incredible case.

The extreme emaciation of Mary Thomas is happily shown in the etchings; and indeed nothing short of these *fac-similes*, as we are assured on the best authority they are, could distinctly point out the absolute loss of muscular fibre, and the diaphanous representation of a skeleton dimly seen through the shrivelled integument.

Prior to the public disclosure of Ann Moore's imposition, Mr. Ward seems to have entertained some degree of doubt respecting her veracity, as we judge from the concluding sentence of his work.

"But in whatever degree (he says) the case of Ann Moore may be equivocal, the circumstances which have given rise to that equivocality do not apply to the case of Mary Thomas. She is emaciated, poor, friendless, and almost unknown. No licentiousness has disgraced her early life; no charge of former imposture is alleged against her; there are no objectors to her veracity; and her abstinence continues after the impressions excited by its novelty have long worn away. Forty years ago she was seen and examined by a gentleman
fully

fully competent to judge of her case, and he does not hint a doubt of its truth. When Mr. Pennant visited her in 1770, he found the neighbourhood convinced of her long and preternatural fasting: no suspicion had ever arisen of any fraud being practised; no motive for imposition offered: few persons saw her, the neighbors excepted, but those who, like Mr. Pennant, were seeking to elucidate the natural history of the county, or to develope its picturesque beauties."

Reluctant as we are to admit any of these extraordinary cases, as plain matters of fact, both on the ground of principle and on history, we cannot but allow a degree of credit to Mr. Ward's "unvarnished" account of Mary Thomas; and regret, with him, that her death should have prevented a minute investigation. But, whatever our opinions may be, we consider this to be a valuable document, as recording extraordinary aberrations of either body or mind; and as accompanied with etchings of the highest excellence, we unreservedly recommend it.

Medico-Chirurgical Transactions. Published by the Medical and Chirurgical Society of London. Vol. III. 8vo. Lond. 1812.

THE rapid publication of the Transactions of this respectable Society, shows the fertility of its resources, and the attentive industry of the gentlemen concerned in the management of its affairs. The volume now before us, has not only the advantage of early publication, but the materials which compose it are of a class and character that entitles them to considerable approbation.

The first article is by Sir Gilbert Blane, bart. M.D. F.R.S. It consists of "*Facts and Observations respecting Intermittent Fevers, and the Exhalations which occasion them.*"

In the autumn of 1809, Sir Gilbert Blane was sent to the island of Walcheren, for the purpose of ascertaining the nature and causes of the sickness and mortality prevailing in the British army on that island. In the autumn of 1810, he was employed by the admiralty to investigate the local peculiarities of Northfleet in Kent, with a view to decide whether any objection in point of unhealthiness would arise to the formation of a dock-yard, and other naval establishments, at that place.

During Sir Gilbert Blane's visit to those places, the facts detailed in this article were collected.

From the 30th of September to the 13th of October, 1809, this physician was in the island of Walcheren, and during this period he found so great a portion of the sick to consist of those affected with intermitting and remitting fevers peculiar

culiar to marshy countries, that no doubt remained that the sickness of the army was owing to that cause.

The history of the Walcheren remittent has been so often detailed, and its morbid phenomena are generally so well known, that instead of any description of the disease, our extracts will be confined to the facts that tend to exemplify the natural history and operation of *marsh miasmata*; an agent still remaining in great obscurity.

In some seasons *marsh miasmata* act with more violence than in others on the same spot. The year of the expedition to Walcheren, it was affirmed by the native inhabitants, was less sickly than usual; and they accounted for this from the unusual quantity of rain that had fallen in July and August; for it is considered by them as a fully established fact, that the most sickly years are those in which there had been great drought and heat in the latter end of the summer, and the early part of the autumn; owing probably to the more concentrated foulness of the stagnant waters. This is perfectly consonant to observations made in the fenny districts of this country. *Marsh miasmata*, when much diluted with aqueous exhalation, is nearly inert; it is when concentrated in the manner just stated, that its power of producing disease is so alarming.

The *miasmata* in Zealand are more noxious than the like exhalations are in England; the intermittents in the former being more violent, untractable, and fatal than those which occur in the fenny countries, in the eastern parts of our own country. Sir G. Blane founds this assertion on the high degree of febrile heat and delirium, on the excessive secretion of bile, on the want of distinct intermissions, and on the more frequent swellings of the liver and spleen, which take place in the Walcheren fever in a few weeks; while in England these (the swellings of the liver and spleen, we suppose, though the structure of the sentence makes the conclusion apply to febrile heat and delirium, &c. as well as to this particular state of the viscera) seldom occur but under a long continuance, or from frequent relapses of the disease.

The distance to which these noxious exhalations, or *marsh miasmata*, extend from their source in a sufficient proportion to produce disease, is a fact so desirable to ascertain, that the observations of Sir G. Blane, which tend to elucidate this circumstance, are peculiarly valuable.

"I had," he says, "in the course of this service, an opportunity of observing the extent to which the noxious exhalations extended, which was found to be less than is, I believe, generally known. Not only the crews of ships in the road of Flushing were entirely free

free from this endemic, but also the guardships which were stationed in the narrow channel between this island and Beveland. The width of this channel is about 6000 feet; yet, though some of the ships lay much nearer to one shore than to the other, there was no instance of any of the men or officers being taken ill with the same disorder as that with which the troops on-shore were affected. The exhalations from the soil in tropical climates extend farther, and are still more malignant than those of Zealand. Ships at the distance of 3000 feet from swampy shores, (a distance to which it did not extend in Zealand,) and even farther, were affected by the noxious exhalations in the West Indies; and I have been credibly informed of the like fact, with regard to the India ships in the channel which leads to Calcutta."

Another law, governing the diffusion of *marsh miasmata*, seems also to have been ascertained; it is, that neighbouring heights are more certainly affected than flat lands nearer to the source of the *miasmata*, but which flats have not a marshy soil. The following facts go far toward proving this:

"The spot at Northfleet upon which it is intended to erect the dock-yard and arsenal, is a marsh of about 700 acres. On the banks of the river, both above and below it, there is a soil of a similar description, but not immediately adjoining it on either side; for above is the village of Greenhithe, which stands on a chalky bottom, rising to a few inches below the surface, and is a projecting point of the chalky hills which compose the adjacent country. Below it, on the banks of the river, there is a similar intersection of chalk, where the village of Northfleet stands. Both these are nearly on a level with the marsh; yet intermittent fevers are almost unknown at either of them, whereas they are extremely prevalent on the adjacent hills. In the neighbourhood of Weymouth, though there is stagnating water near the sea, producing intermittents, these disorders are not known in the dry districts on each side on a level with the water, but prevail on the adjacent hills. At St. Blazey, between St. Austle and Lestwithiel, agues prevail much on a hill adjoining to a marsh contiguous to the sea beach. In a district on the river Burrampooter, the waters of which overflow, and, upon retiring, leave an oozy flat, agues prevail to the very summit of the adjoining hills. Lancisi mentions a hill on which the same sickness prevails as in the marshy lands at the foot of it. (*Lancisi de Noxiis Paludum Effluviis. Roma, 1717. p. 120.*) At St. Lucia, one regiment, the 90th, on the Morne Fortanée, lost 271 men; the 91st, on the side of the hill, 318; the 89th, in the Grand Cul de Sac at the bottom, 486. The hill or Morne is above the level of the sea 872 feet."

Why this, so contrary to what, *a priori*, might have been expected, occurs, Sir G. Blane endeavors thus to explain:

"It is known to every one, ever so little acquainted with the operations of nature, and indeed the common phenomenon of clouds and rain render it obvious to the most ordinary observer, that water, recently

cently exhaled from the surface of the earth, has a tendency to ascend, and being lifted over parts on the same level, impinges on the neighbouring heights. There is reason to believe that impure and unwholesome particles in general are attracted by watery vapors; for it is remarkable, that, in case of fogs, offensive smells are perceived, which in a dry state of the air were fixed and quiescent. Though pure humidity, therefore, is innocuous, it may prove pernicious as a vehicle of unwholesome and volatile matter. In like manner, the poisonous principle of marshes, whatever it is, being engendered by moist soils, will naturally adhere to the watery vapors, and ascend with them."

This would go very far to explain why high lands in the neighbourhood of marshes are so commonly enveloped in a poisonous dose of the *miasmata*, did it not occur, as has been previously asserted, that these *miasmata* are in the most active state during dry and hot autumns. It remains, however, matter for future observation, and we hope it will not be lost sight of, whether the *miasmata* become more active after a thunder storm, sometimes occurring in a series of dry weather, or on the setting in of wet; or whether they are really more active in a *dry* than in a *humid* atmosphere. The fact of marshy effluvia being most pernicious in dry and hot autumns we consider to be fairly established; but we are not aware that a humid atmosphere is at all essential to their rapid and destructive diffusion.

Did our limits permit, we could add with much satisfaction many more extracts from this valuable paper; and, though we cannot compliment the baronet on the elegance or perspicuity of his style, we acknowledge the value of his materials. An appendix to this paper, containing "Remarks on the comparative Health and Population of England and Wales," though it goes but slightly into the subject, contains some interesting facts, which we may hereafter take occasion to present to our readers.

ART. II. *History of a remarkable Case of Ovarian Dropsy.*
By THOMAS CHEVALIER, Esq. F.L.S.

This occurred to a woman 23 years of age; it was of six years standing when Mr. C—— first saw it: the abdomen enormously large, but unaccompanied with any alteration of the general health, except that the catamenial discharge had failed for two years, and there was a scanty secretion of urine. The circumference of the abdomen was 63 inches and a half; 38 inches from the point of the ensiform cartilage to the top of the pubis. The legs were œdematous, and a great part of the skin of the left leg was in a complete ichthyosis. The lower part of the belly was also œdematous, and the navel when she sat was on a line with the knee.

knee. On the 1st of June an oblique puncture with a lancet was made at the most prominent part of the abdomen, in the linea alba, six inches above the navel, and seven gallons and a half of coffee-colored fluid were evacuated. On the 8th a second puncture was made in the most prominent part on the left side, and four gallons and a half of a straw-colored ropy fluid were discharged. A puncture with a trocar was made on the left side on the 27th, and a gallon and a half of a very ropy brownish fluid was discharged. July the 6th a small quantity of fluid was evacuated by the trocar, but a cyst of uncommon firmness closed the canula; this cyst was punctured with the trocar, used for puncturing the bladder through the rectum, and three gallons and a half of ropy brown fluid were drawn off, completely emptying the abdomen.

After this last operation her health became much disordered, and she languished till the 6th of September, when she died.

On examining the body after death, the whole cavity of the abdomen appeared to be occupied by two large cysts formed in the left ovarium, of a firm texture. The upper of these cysts contained about two quarts of a brown glary fluid, the inferior about two gallons of purulent fluid; its inner surface was covered with coagulable lymph, having in it many large dark-red spots. The right ovarium and uterus were in a perfectly healthy state.

The interesting particulars of this case were, the enormous quantity of fluid accumulated in these cysts, not less than seventeen gallons at one time; the little derangement in the health from extraordinary accumulation, almost the whole of the inconveniences she sustained arising from the excessive weight; and the inflammation and suppuration in the larger and inferior cyst, to which her death is to be ascribed.

It is a curious pathological fact, that in this cyst, "near a quarter of an inch in thickness, as compact in its texture as parchment, and entirely insensible, the process of inflammation should be excited, and go on to so large a collection of pus, attended with a rapid decay of the health, and showing the sympathy of the constitution with this adventitious substance, without pain or tenderness being excited in it, or the neighbouring parts."

ART. III. *A Case of difficult Parturition, occasioned by a Dropsical Ovarium forming a Tumor in the lower Part of the Pelvis.* By SAMUEL MERRIMAN, M.D. &c.

Dr. Merriman was called to a woman in labour with her second child; the process of parturition seemed to be retarded

by a tumor in the pelvis. On examination *per vaginam*, this tumor was ascertained to be soft and elastic, seemed capable of containing four or five ounces of fluid, was compressible, did not give the sensation of fluctuation, but rather felt as if it were a large pouch, formed by the coats of the rectum preternaturally distended. Beyond this tumor the child's head was felt within the os uteri, which was thick, rigid, and but little dilated. After thirty-six hours of ineffectual labour pains, it was deemed proper to have recourse to the perforator. After diminishing the size of the head, the child was expelled; and a second of smaller dimensions by the natural pains.

On the twenty-fifth day after delivery, the woman died of peritoneal inflammation.

"The body was opened the next day, and exhibited the usual appearances of peritoneal inflammation. The left ovarium was in its proper situation, and of its usual size; but the right was found lying between the rectum and vagina, and had formed the tumor felt during labour. It was about the size of a small trap-ball, and in a state of high inflammation. It was divided into several cavities by membranous *septa*, which had a scirrhus feel, and was somewhat more than half filled with a fluid resembling in color and consistence honey and water mixed together; it contained likewise a clot of blood. The pelvis was narrow, the diameter from the symphysis pubis to the sacrum being but little more than three inches."

The ingenious author observes on this, "that though the narrowness of the pelvis would have delayed the passage of the head through the upper aperture, it is not improbable that the presence of twins might likewise prevent the full effect of the pains." But he imagines that the position of the diseased ovarium, more than any thing else, prevented the expulsive efforts of the womb; not because it proved an obstacle to the birth of the child, but by paralysing all regular uterine action.

Several instances are adduced from authors, of tumors in the pelvis retarding the process of parturition.

ART. IV. *Case of diseased Appendix Vermiformis.* By JOHN PARKINSON, Esq. Surgeon.

Inflammation and ulceration occurred, and through an opening in the appendix a fetid fluid escaped into the cavity of the abdomen.

ART. V. *A Case of Diseased Testicle, accompanied with Disease of the Lungs and Brain, and terminating fatally.* By HENRY EARL, Esq. To which is added a Note, by WILLIAM LAWRENCE, Esq. containing some Particulars of the Histories and Dissections of four Cases.

A boy, one year and nine months old, had, when a year old,

old, received a pinch on the testicle. From that period the gland gradually increased. He had been under the care of several surgeons; and leeches, poultices, mercurial ointment, &c. had been employed without producing any visible amendment. The case had been twice mistaken for hydrocele, and the testicle had been punctured with a trocar, but no fluid was evacuated. But little inflammation succeeded these operations, and the disease did not appear to be aggravated by them. At this period the testicle was rather larger than a goose-egg, and, when unsupported, reached to the internal condyle of the femur. It was of an oval figure, with a regular smooth surface, and when pressed had an elastic feel, so as to produce the sensation of a fluid contained in a cyst; and so deceptive was this feel, that a gentleman, who has most extensive practice in the treatment of hydrocele, pronounced it to be that disease. It was not, however, in the slightest degree diaphanous; and, at the same time, was much heavier than a similar bulk of water. No testicle or epididymis at the posterior or inferior part of the tumor. The child had a most unhealthy aspect; the skin a greenish yellow, bedewed with a clammy moisture; the muscles flaccid, and diminished in size; head large, and prominent in front; eyes heavy; pupil dilated; and the iris of so unusually dark a color, as to be hardly distinguished from the pupil. Respiration rather laborious, troublesome cough, with frequent and hard pulse; abdomen tense, and habitually constipated.

The testicle was removed, the child regained health, and appearances were favorable for some months; but a disease in the brain and lungs, connected, as it does seem, with a peculiar morbid diathesis, which exists with this disease of the testicle, destroyed him. The dissection, previous history of the disease, and the subsequent remarks of Mr. Lawrence, illustrated by four additional cases, give considerable interest to this paper.

ART. VI. *Description of an improved Method of tying diseased Tonsils.* By THOMAS CHEVALIER, Esq.

This method of passing a ligature round a diseased tonsil, cannot be made intelligible to our readers without the accompanying plate.

ART. VII. *Case of Cynanche Laryngæa.* By J. R. FARRE, M.D.

Something like novelty which attaches to cases of *Cynanche Laryngæa*, the celebrity of some men who have fallen by it, and its fatal celerity, combine to give it importance. The two cases by Dr. Farre are of great interest, though related

related with much conciseness. The second of them, as having come immediately under his notice, we shall give in the author's words.

"A man, 60 years old, on the 31st of March was affected with painful and difficult deglutition. April 1st, fluids attempted to be swallowed returned by nose; the tonsils were inflamed, and disposed to ulcerate. A brisk purge was ordered. At ten o'clock this evening, his respiration suddenly became difficult; thirty-two ounces of blood was drawn from his arm, which proved to be very sizzly. At eleven o'clock, the tumefaction of the tonsils was inconsiderable; the deglutition was extremely painful, and very difficult; respiration was performed with convulsive and long-continued efforts; his voice was nearly inaudible, and he could only whisper. He answered inquiries respecting the seat of his suffering, by putting his finger on the superior part of the thyroid cartilage. He felt no pain in the chest. All the muscles of respiration were thrown into violent action, and he lay with his mouth widely opened, pupils dilated, face pale and sunken, skin covered with a clammy sweat, his pulse 133 and small. His powers were prostrate, and general bleeding could not be repeated. The anterior part of his throat was covered with leeches, but the disease never paused. At midnight, bronchotomy seemed to be the only resource; and soon after one o'clock its employment was decided on. About two o'clock Mr. Astley Cooper attended, and as suffocation was instantly impending, the operation was immediately performed, by dividing, laterally, the ligament which connects the thyroid with the cricoid cartilage. The dyspnoea was much relieved by the operation. He now lay passive, breathing by the natural and artificial aperture, and the inordinate action of the muscles of respiration had ceased. He swallowed some nourishment with a painful effort. In this state he passed the night, and the greater part of the following day. In the afternoon, the respiration by the natural passage entirely ceased, but was continued by the artificial aperture. He was now evidently sinking, and expired at six in the evening."

At eight o'clock the next morning, the parts, as examined by Mr. Astley Cooper, gave the following appearances:

"The right tonsil inflamed and vesicated. The epiglottis swollen, its edges meeting behind, excepting just at its upper part. Pharynx inflamed, somewhat vesicated, covered with coagulable lymph about the epiglottis, but free from inflammation near its termination in the œsophagus. The aperture which had been made between the cartilages, appeared to be about the size of the glottis. The mucus membrane of the larynx and trachea was pale. There was some accumulation of mucus in the cells of the lungs, and a slight affusion of serum into their reticular texture."

The term *Cynanche Laryngea* is properly applied to this disease, Dr. Farre observes, because it proves fatal by constricting or actually closing the glottis, and constitutes precisely that case which, in its ultimate degree, imperiously demands the operation of *bronchotomy*.

ART,

ART. VIII. *History of a Case of Anæsthesia.* By
JOHN YELLOLY, M.D.

This is a correctly written history of an unusual disease, and, as a collection of facts of a nature so singular as to confound some of our physiological opinions on the action of the brain and nerves, deserves the serious attention of those who endeavor to explain the actions of those organs. The loss of sensation in the upper and lower extremities, independent of paralysis, at the same time that the integuments of these parts were more readily acted upon by certain external agents, (particularly vesication was produced by exposure to a degree of heat quite unequal to the production of it in a healthy skin) involve a contradiction not to be explained by any existing systems. Our limits do not permit an insertion of the case. Dr. Yelloly has annexed a collection of similar instances of Anæsthesia found in authors.

ART. IX. *Account of a Case of spontaneous Extravasation within the Theca Vertebralis.* By THOMAS CHEVALIER, Esq.

This paper contains a short history of instances of extravasation of blood into the cavity of the spinal canal, constituting a species of apoplexy in which the brain is not directly concerned. It is conjectured to be produced by some violence *ob extra*, and is often rapidly fatal. Bleeding, and the antiphlogistic treatment very early employed, seems to afford the most rational means of obviating the impending danger.

ART. X. *Observations on Diabetes Insipidus.* By
JOHN BOSTOCK, M.D.

Diabetes insipidus is considered, by Dr. Bostock, as of rare occurrence;* and he believes this to be very decidedly proved by the fact of scarcely any distinctly detailed case of this disease being recorded since the time of Willis, who first pointed out the sweetness of the urine. Cullen says (First Lines, 4, 85) that he had seen but one case in which the urine was not saccharine. The two cases related by Dr. Rollo, in which a large quantity of watery urine was evacuated, were consequent to a local injury of the kidney, and do not belong to this class. The case in Duncan's Annals (1801, p. 390—1802, p. 361) is not entitled to the

* In the course of his remarks, however, Dr. Bostock seems, in no small degree, to have given up this opinion. At p. 114, he says, "for although cases of *Diabetes insipidus* have been but seldom noticed, yet I am disposed to believe that it is a more frequent occurrence than is generally imagined."

appellation of diabetes. The only reference made by Cullen is to Lister; but it appears that Lister believed in the existence of *Diabetes insipidus* merely upon hypothetical grounds. Sauvages hastily and peremptorily declares that all the diabetic cases of the ancients were insipid; because they do not mention the sweetness of the urine; while it is admitted that ever since the time of Willis, all the cases have been saccharine. (Nos. Meth. 2, 384.) It may not be improper to observe, that the opinion that the stomach and not the kidney was the primary seat of diabetes, is not a novelty, for Lister (Exerc. Med. p. 74) implicitly declared and defended this opinion a century ago.

The case related by Dr. Bostock was cured by the use of preparations of iron and the warm bath. The greater part of this paper is occupied by chemical experiments with this urine, and that of other diabetics.

ART. XI. *Cases of premature Labour artificially induced, in Women with distorted Pelvis; to which is subjoined, some Observations on this Method of Practice.* By SAMUEL MERRIMAN, M.D.

The whole routine of medical practice does not present any other cases which require so great a share of delicacy and caution, as those demanding an artificial inducing of premature labour. The subject has been treated with, perhaps, a proper reserve; which has, consequently, left the practice too little explained. Under these circumstances, the profession must be much indebted to this ingenious and able physician for going thus fully into the subject. No analysis will do justice to this article, and we unreservedly recommend it to the attention of our readers.

ART. XII. *Experiments on the Bark of the Cocoloba Uvifera.* By JOHN BOSTOCK, M.D.

The *Cocoloba Uvifera*, or Mangrove grape tree, belongs to a genus of which many species are known. It is common in most of the sugar colonies, and is generally found near the sea. By the Spaniards it is called *Uvero*, and by the French *Raisienier du bord de la Mer*. It was brought into this country by Mr. Bentick in 1696.

Dr. Bostock has been employed on an examination of the chemical properties of the bark of this species of *Cocoloba*, with a reference to its identity with the *Kino* of the West Indies: the analysis is here laid before the public, and the result is that the extract of *Cocoloba* is a substance of the same nature with the *Kino* used in medicine; but that it differs from it so far as to show that they are not derived from the same plant.

ART.

ART. XIII. A Case of Splenitis, with further Remarks on that Disease. By ROBERT BREE, M.D. F.R.S.

This is a case of great importance in practice, presenting a detail of the phenomena of a complaint of much obscurity, and liable to very improper treatment, if not absolutely to be mistaken or neglected. It is intended to show the advantages of a course of drastic purging in *Splenitis*. The extensive employments of the author have brought under his view numerous cases of this disease; and his talent for observation has enabled him to detect circumstances, and direct methods of treatment, which have not occurred to less attentive practitioners.

"Many cases," he says, "have concurred to show me in a very satisfactory manner that drastic purging, long continued, is the proper mode of treatment. By this practice a young woman has been relieved of a swelling of the spleen and epileptic fits at the same time. The fits began with the first symptoms of disease in the left side, and have disappeared for the last year, during which time she has been gradually recovering from the swelling and pain. Compositions of aloes and antimony were preferred in the cases that have been related, but not exclusively adopted: large doses of neutral salts have, however, appeared exceptionable when exhibited daily, as they have occasioned flatulence and depression. But aloes, extract of colocynth, and scammony with jalap, have acted without this inconvenience, and calomel has been combined with these at intervals, producing more effectual discharges from the bowels; tartarized antimony in such minute doses as not to puke, has always appeared to increase the beneficial effect of these combinations."

Of the progress of *Splenitis* in its different stages, as marked by symptoms, the description seems so distinct and specific, that we cannot refuse to lay it before our readers, as affording that valuable kind of information directly applicable to practice.

"In the earliest condition of this disorder, the organ is swelled from the passive state of its vessels, which receive a greater proportion of blood than they can return. No fever accompanied this stage, nor was it the effect of fever, but an idiopathic affection, leading to inflammation by tension and irritation of the membranes that invest the spleen. The means of cure were experienced to be active, and daily so persisted in as to become the probable cause of disease, if they had not been essential to the removal of it."

"In the second stage the pulse becomes quicker, and it is long in convalescence before it is reduced to its natural standard. The increased pulse is produced by painful irritation at first, and next by the actual tension of the membranes, proceeding to inflammation and adhesion of the adjoining parts. The quickness of the pulse will assist in distinguishing the degree of progress of this disease, for it will be

found, by reference to histories, that in a great proportion of cases, there was no warning of the growing mischief in the earliest stage; and that painful affection of the left side existed in many other cases, long before fever was induced, though these ended fatally. In the first stage the patient can lie upon the left side, but not upon the right side. In the second stage it is impossible to lie on the side affected. The spasmodic action of the diaphragm is more likely to come on in the second stage, and may be much aggravated by stimulant treatment. There is no emaciation in the first stage of a morbid kind, nor any considerable emaciation in the second stage, notwithstanding the large and continued evacuations.

"In the third and last stage of *Splenitis*, emaciation is always an attending symptom, combined with hectic or slow fever, particularly in middle-aged and elderly people. In this third stage diarrhœa supervenes, as well as dysentery, and discharges of grumous and dark blood take place, by vomiting and by stools: these discharges give temporary relief in many cases, and occur long before the final event."

ART. XIV. Account of the Muscles of the Ureters, and their Effects in the irritable State of the Bladder. By CHARLES BELL, Esq. F.R.S. Ed.

A description of a set of muscles, which Mr. Bell considers have not been noticed by former anatomists. They are attached to the orifices of the ureters, and are seated in the bladder. In health they are the instruments of a very peculiar organic action, and in disease the cause of most distressing complaints. Among other interesting details, the writer goes into an historical inquiry concerning the existence of a third lobe of the prostate, and shows that it was known to *Morgagni*, and had become the subject of discussion in his day. Plates and diagrams illustrative of the author's positions and descriptions, accompany this paper.

ART. XV. History of a Case in which a Calculus was voided from a Tumor in the Groin. By THOMAS COPELAND, Esq.

This well-written account and judicious management of an extraordinary case, deserves the attention of the profession, and is a very positive instance of the powers of the *Vis Medicatrix* when not obstructed by the improper interference of art. In the case, where the calculus was discharged at the abscess in the groin, it is understood to have been lodged in the *cæcum*.

(To be continued.)

MEDICAL

WHEREAS great mortality has occurred in the last and the preceding year amongst his Majesty's subjects in the metropolis, and in many parts of the United Kingdom, from the disorders of the small-pox: and whereas from the extended, and in many cases almost universal, practice of vaccination in many parts of the world, the mortality from small-pox has in such countries altogether or in great part ceased: and whereas the Royal Colleges of Physicians and Surgeons respectively in London, and the physicians and others superintending other medical establishments, have, in authentic reports and communications, recorded their opinion as to the security afforded by vaccination against the variolous infection: and whereas it is expedient, for the security and preservation of the lives and health of his Majesty's subjects, that certain rules and regulations should be established for the giving notice of persons communicating by inoculation, or receiving by inoculation, or otherwise, the variolous infection, that precautions may be adopted against the spreading of such infection, in order that persons preferring inoculation to vaccination may resort to the same with as little danger as possible to others of his Majesty's subjects; be it therefore enacted by the King's most Excellent Majesty, by and with the advice and consent of the Lords spiritual and temporal, and Commons, in this present Parliament assembled, and by the authority of the same, that from and after the

And be it further enacted, that from and after the day of _____ the parent or guardian of every child, and master of every apprentice not living with the parent or guardian, and the master or mistress of any school, and owner of every house in which any child not living with the parent (such child being under

the age of years), and every infant above the age of years, and every adult respectively receiving variolous inoculation or taking variolous infection, shall, upon the day upon which such inoculation shall have taken place, or upon which it shall be ascertained that such variolous infection has been taken, or otherwise as soon after as possible, and in every case before the expiration of days, give like notice thereof in writing, or, if unable to write, then shall cause like notice to be given thereof, specifying the name and residence of the person performing the operation, and the day on which it was performed; or of the person called in to attend in case of the variolous infection being taken, and the day of such person being called in so to attend, and the name, age, and sex of the person so inoculated or under such infection as aforesaid.

And whereas it is highly expedient and necessary for the enforcing the provisions of this act, and obtaining accurate returns of the state of inoculation for the small-pox from time to time: be it therefore enacted, that from and after the passing of this act it shall not be lawful for any person to practise inoculation for the small-pox without obtaining from one of his Majesty's Royal Colleges of Physicians or Surgeons of London, Dublin, or Edinburgh, printed papers in the form in the schedule to this act annexed marked (A.), which forms shall be printed and ready for delivery by such colleges, and shall be transmitted upon application to medical practitioners for the same; and every person who shall inoculate for the small-pox shall insert the name, age, and residence of the person inoculated, and the result of the inoculation, and the churchwarden or overseer of the poor of the parish or place where such inoculation took place, with his own name and residence, upon such printed form; and at the expiration of days the person so inoculating shall transmit the said printed form, filled up with such particulars, to the registrar or secretary of the Royal College of Physicians or Surgeons from which the form was obtained; and every such return directed to the registrar or secretary of any such College of Physicians or Surgeons, (as the case may be), and marked at the top "Small-pox Return," shall go free of postage; and each of the said Royal Colleges shall transmit an annual summary or abstract of such accounts made up to the end of each year, to his Majesty's Secretary of State for the Home Department, on or before the day of in the following year.

And be it further enacted, that every medical practitioner attending a variolous patient, shall give to every such patient a certificate in writing, signed by himself, stating, that in his opinion all infection has ceased, whenever and as soon as he, to the best of his judgment, does conceive such infection to have ceased.

And be it further enacted, that no parent or guardian of any child living with the parent or guardian, or master or mistress, or owner of any house, having the care of any child not living with the parent, who shall have been inoculated or infected with the variolous disease, shall expose or permit or suffer any such child to be exposed; and no adult person shall expose himself in the public highways or streets

previous to such certificate having been signed and delivered by the medical practitioner attending such child or adult.

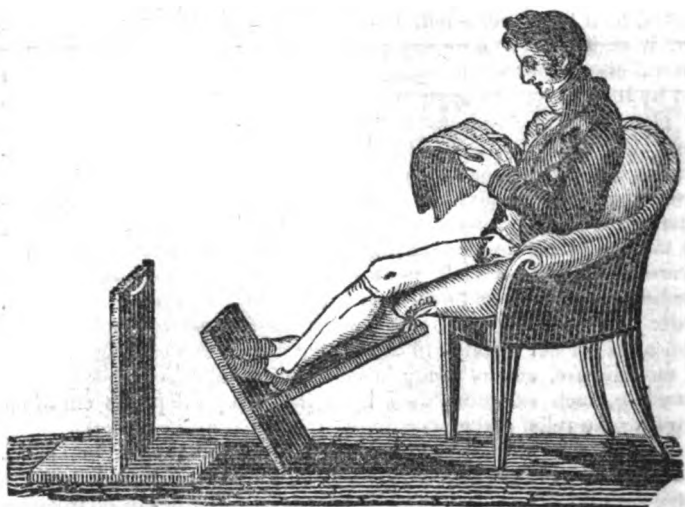
And be it further enacted, that from and after the passing of this act, it shall be lawful for any person who may be attacked with the natural disease of the small-pox, or whose child may be infected, but not by inoculation, to apply to the overseers of the poor of the parish or place in which such person resides, to be received, or that such child shall be received into the house in the parish or place appropriated to the reception and recovery of poor persons having infectious disorders, if there shall be any such house, or otherwise into such habitation, lodging, or dwelling, as may, from its situation or otherwise, be the least liable to the propagation of the said disease; and the overseers of the poor shall, upon such application, make an order accordingly; and the said overseers are hereby required to give such order; and upon the declaration of the person making such application of his or her inability to defray the expences attending the cure of such disease, and of being in such house, habitation, lodging, or dwelling, such expences shall be defrayed by the parish out of the rates for the relief of the poor.

And whereas in some parishes the children and other persons maintained or assisted, or receiving relief out of the poor rates, are and have been inoculated with the small-pox by order of the churchwardens, overseers, and others, (a practice which greatly contributes to perpetuate and spread this mortal contagion;) for the prevention whereof, be it further enacted, that it shall not be lawful after the passing of this act for any vestry, churchwardens, overseers, committee, or guardians, or any other persons having any controul or management of the poor in any parish, by whatever name such persons may be called, to order any person maintained or assisted by the parish, or receiving relief from the parish, or any child whose parents or parent are so maintained or assisted, or receive such relief, to be inoculated with the small-pox; and no medical or other person shall on any account whatever inoculate any such poor person for the small-pox, in pursuance of any such order as aforesaid.

SCHEDULE (A.)

No.	Duplicate to whom granted No.	To whom granted.	Date of Inoculation.	Duplicate Name.	Age.	Residence.	Slight Affection.	Severe Affection.	When died.
1	1								

JENNENS'

JENNENS' FOOTSTOOL.

The simplicity and convenience of this footstool will generally recommend it: by the medical profession it has, however, a particular claim to be regarded as a contrivance calculated to administer ease and to facilitate the cure of those complaints in the lower extremity, in which it is important to preserve the limb in nearly a horizontal position. The mechanic arts have but seldom presented an auxiliary to medical science of more direct application, or of more effectual result. In this view it may be strongly recommended to the notice of the faculty, without the hazard of disappointing expectation.

A very interesting operation has recently been performed by Mr. Lynn, on a man who had lost the whole of his under lip by a cancer. The operation was conducted on the principle of a known practice in India, of restoring a lost nose, by means of the adjacent skin being raised from the flesh, and after being folded over, is made to form the part required, taking care to preserve the circulation. In this instance the skin was brought up from the throat, and the lip is so perfectly formed that the pronunciation of even the labial sounds is perfectly distinct. We have reason to believe that Mr. White, assistant surgeon to the Westminster Hospital, suggested this operation to Mr. Lynn.

Dr. Squire will, on Tuesday, August 17th, begin a Course of Lectures on the Theory and Practice of Midwifery, and the Diseases of Women and Children.—Particulars may be known at Dr. Squire's house, Ely-place, Holborn.

METEO-

METEOROLOGICAL TABLE.

From June 25, to July 25, 1813.

D.	Therm.				Barom.	Hygrom.		Winds.	Atmos. Variation.
						Dry.	Damp.		
26	63	73	62	30 ²	—	20	38 15	E.	F....
27	65	76	62	30 ²	1	28	43 24	E.	F....
28	63	68	60	30	29 ⁹	15	21 7	N.S.E.	F.. C.. R..
29	64	67	57	30	29 ⁸	17	15 10	S.S.W...	F..R..F...R...inN
30	51	54	57		29 ⁷	3		11 5 SW..	R... — ... — ...
1	53	62	57	29 ⁸	—			9 7 1 W..	R... — ... R...inN
2	54	65	53	29 ⁸	—	4	15 5	NW.N..	F.. — ... C.. R.
3	54	65	53	30	30 ¹	5	— 6	N.	F.. C...
4	58	67	57	30 ²	—	10	21 12	N.	F..
5	56	68	57			15	26 15	N.S..	F..
6	62	70	59	30 ¹	29 ⁹	15	38 27	SW..	F.. F....
7	69	79	55	29 ⁹	8	21	40 27	SW..	F.... C..
8	65	66	61	29 ⁸	7	24	20 17	SW.	F..
9	66	76	63	29 ⁸	—	15	37 26	W.	F..
10	65	75	63	29 ⁹	30	24	41 27	W..	F..
11	62	69	62			20	25 21	W.	F..
12	66	77	63	29 ⁹	—	28	41 26	S.W.N.	F..
13	65	71	61	29 ⁹	8	20	21 15	NE.S.	F.. R...in N
14	64	70	62	29 ⁸	7	10	6 2	SW.	F.. C.. R —. in N
15	60	55	57			5		10 1 W.	F..R...R...R..
16	62	73	59	29 ⁹	—	9	11 16	W.	F.. R.. F..
17	61	71	60	29 ⁹	30	11	24 16	W.	F.. R.. F..
18	61	71	60	30	29 ⁹	25	— 26	SW.	F..
19	63	66	60		29 ⁷	14	15 —	SW.N.S.E.	C.. R.. C..
20	65	75	64	29 ⁶	—	10	42 20	W..	F.... R.
21	64	70	63	29 ⁷	—	12	17 9	SW.	F.. R.
22	62	71	61	29 ⁶	—	14	20 10	NE.W.	F.. R.
23	63	70	59	29 ⁶	—	11	26 14	NW.S..	F.. R... F.
24	57	72	66		29 ⁷	8	30 —	S.SW.	C..R... — ...inN
25	60	70	66	29 ⁵	29 ⁶	30	15 10	W...	F..R..F..R...F...

Quantity of rain from the 25th of June to the 25th of July, 2 inches $\frac{4}{10}$.

28th. Cold fog in the night; distant thunder and flashes of lightning in the evening, with some rain. Temperature sensibly more warm in the evening than in the morning, though the thermometer indicates three degrees less of heat.—29th. Gale from the SW in the night, with rain; distant thunder in the evening.

2d. Stormy wind from N in the morning, with cold rain.—7th. Heat oppressive.—15th. Rain the whole day. St. Swithin.—19th. Variable winds, light and soft, passing round the compass, with showers in the middle of the day.—23d. Thunder in the afternoon, with heavy showers.—24th. Thunder, with heavy showers, P.M. Much rain in the night.

Inflammatory affections of the throat and chest have still occasionally appeared; and in one instance of pneumonic inflammation, the cause was evidently traced to the application of highly heated air to the lungs. A few cases of cholera have occurred.

Prince's Street, Cavendish Square.

MONTHLY

MONTHLY CATALOGUE OF MEDICAL BOOKS.

A PRACTICAL Treatise on the Remittent Fever of Infants; with Remarks on Hydrocephalus Internus, or Water in the Brain; and several other Diseases: and Cases and Observations designed to illustrate the influence exerted by a certain disordered State of the Chylopoietic Viscera upon local and constitutional Diseases; and to prove the Utility and Necessity of removing it, in order to facilitate and establish their Cure. In Two Parts. By James Millman Coley, Member of the Royal College of Surgeons, &c. &c. 8vo.—Underwood.

The Modern Practice of Physic; exhibiting the Character, Causes, Symptoms, Prognostic, Morbid Appearances, and improved Method, of treating the Diseases of all Climates. By Robert Thomas, M.D. Fourth edition, revised and considerably enlarged. 8vo.

Medical Histories and Reflections, Vol. 4. By John Ferriar, M.D. 8vo.—Cadell and Co.

A short Account of Experiments and Instruments depending on the Relations of Air to Heat and Moisture. By John Leslie, F.R.S.F. 8vo.—Longman and Co.

A Letter addressed to Mr. U. T. Hausmann, by J. A. de Luc, Esq. giving an Account of the Origin of Hygrometry, of the Invention of the Hygrometer, and of its practical Use; to which are added, Tables expressing the quantities of Water contained in a given space of Air for each degree of that Hygrometer and the Thermometer, constructed by U. T. Hausmann. 4to.—Hatchard.

NOTICES TO CORRESPONDENTS.

We have received several letters upon the subject of Medical Reform; from the general feeling expressed in them, it appears to be the wish of some respectable correspondents, that the discussion should still be continued, presuming that the bill will again be brought before Parliament. We shall therefore take an early occasion for renewing the subject.

Mr. Pulley and Mr. Gibbon again call upon Dr. Yeats to publish the case of Ann Foulkes. From their statement, it would seem as if the doctor had been imposed upon.—Mr. Pulley writes, "I still feel myself under the necessity of publicly calling on Dr. Yeats for his case of vomiting of urine. His pledge to publish it cannot be considered in the light of a private intimation, nor was it loosely given; it was positive and distinct; and his determination to send it to the world arose from the difference of opinion entertained by other medical men."—Mr. Gibbon considered the case to be a gross instance of imposture, and his opinion appears to be sanctioned by the most eminent practitioners in the neighbourhood of Bedford, where the peculiar circumstances of the case have excited an extraordinary degree of interest.

THE

Medical and Physical Journal.

3 OF VOL. XXX.] SEPTEMBER, 1813. [NO. 175.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

I RELY on your wonted candor for the insertion of the following cursory remarks. The best view of the subject of Medical Reform, in my opinion, would be to advert to the utility that is derived from the profession in general, to every description of people, and to consider how it can be regulated to obtain the most possible good, not only to the profession, but to the people at large. Your correspondents, amongst many judicious and learned remarks, appear to me to have considered not so much the *bonum publicum*, as the interested opposition which exists between the colleges and the surgeon-apothecary. For that purpose the cobwebs have been brushed from ancient law-books, and enactments of less improved times are brought forward, to cripple the exertions, and destroy the interests of the surgeon-apothecary. According to these laws, the only authorised prescribers are the physicians, and “divers honest persons, as well men as women, (not surgeons and apothecaries,) whom God has endued with a knowledge of the nature, kind, and operation, of herbs, roots, and waters, to customable diseases, and who are allowed by enactment tempore Henry the Eighth, to use and minister the same, according to their cunning and knowledge.” In modern language, these divers honest persons are water-casters, bone-setters, pretenders, and quacks, of the very lowest description, and generally believed by the vulgar to possess the occult art of sorcery and witchcraft; these have unrestrained and most extensive practice throughout the kingdom, except perhaps in surgery, within London, and seven miles round.

The surgeon-apothecary has been charged with overstepping the department of his profession. I do not believe that it has ever been in the most distant contemplation of the surgeon-apothecary to rival the physician, nor to charge in equal degree, but to legalize some inferior mode of remuneration for his attendance; for such is the nature of his department, that he commonly does and must attend prior, with, and subsequent to the physician. The surgeon-apothecary is never averse from the physician being called into consultation; it eases the burthen of responsibility, and adds in other respects largely to his interest. It is the legalized

No. 175.

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empirica

empirics who refuse the co-operation of the physician; but, indeed, what physician would hold a consultation with them? Learning they despise, physicians and surgeons they are in the constant habit of ridiculing and nicknaming, and the confidence that the middle and lowest order of society have in these pretenders to the healing art, is exceedingly detrimental both to the public and the profession. No subject connected with medical economy calls more loudly for inquiry than this; these are the men to whom *Salus Publica* might more properly apply his epithets; it is they who are in possession of Pandora's box; they have opened it, and none can shut it but the powerful hand of an efficient act of parliament.

If the law of this realm, with regard to medical men, be as Censorinus would interpret it, then it follows that no man in this highly-favored country can be accommodated with medical advice, however dangerous or urgent his illness may be, unless he sends (if in a country place, and the patient able to bear the expenses of advice,) perhaps from ten to twenty miles for a physician; if not, however reluctant, he must, *per legem*, be content to submit his life to the ignorant herb-doctor. Does this call for no reform of the existing laws of the nation, with regard to the easiest and best manner of accommodating the people with medical assistance? It may be said these objections apply only to inconsiderable country situations, and that where population most abounds, the physician is at hand; but will the physician visit daily the poor man's garret or cellar, accompanied by his apothecary, (or his favorite druggist,) for about two shillings *per diem*? for this is the full amount of the apothecaries charges, medicines included: or could a sufficient number of physicians be found to attend such of the sick as refused the assistance of the herb-doctors, the other class of lawful practitioners? I am persuaded that there would not. If, then, the lives and healths of millions are to be regarded in preference to the monopoly of fees by any set of men; if it be desirable that the ignorant vulgar should have none but practitioners of acknowledged professional skill to make choice of; if it be right that the laborer is worthy of some lawful hire, and any weight is to be attached to reasonable argumentation, then the projected Medical Reform, in some prudent way, ought to be encouraged by every lover of his profession, and well-wisher of the public. I am, Gentlemen,

Your most obedient Servant,
ANTIEMPIRICUS.

Rochdale, July 9, 1813.

To

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

HAVING perused the many excellent observations and opinions contained in the different Numbers of your enlightened Journal, on the subject of Medical Reform, I am rather surprised to find no notice taken of what I have great reason to believe is become almost a crying evil, which is destructive of many a patient, and highly injurious to the credit and character of many a physician. To guard against which, I hope the legislature will, in its wisdom, inflict a very heavy penalty on any one who shall in future venture to substitute, without leave of the prescriber, one medicine for another, in any prescription he shall undertake to prepare; or who shall not prepare it exactly according to the formula prescribed. For, whether from indolence, ignorance, or self-conceit it occurs, it is equally productive of the mischief above-mentioned; and from which I am sorry to have occasion to say, I, and many of my patients, have been great sufferers.

MEDICUS.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

AS the London Committee of Apothecaries intend to renew their application to Parliament in the next session, for a bill to regulate the profession, and earnestly solicit the continued co-operation of the country practitioners in furtherance of the same object, it behoves the latter gentlemen to re-consider the subject, and estimate as correctly as possible all the probable consequences of regulating and restraining the practice of the profession by such legislative provisions, or by any similar ones, as those last proposed by the London Committee.

There was no doubt but that the majority of the profession would hail with approbation any proposal to improve its usefulness and respectability, particularly when coming from such a source as it did; but it is to be feared that this sentiment, and the expectations which were raised, have been succeeded by some degree of disappointment; and some change of opinion, as to the possibility of making any law on the subject that would be equally advantageous to the public and the profession, and whether it would not be productive of more trouble and vexation than utility.

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There is, I presume, no doubt that there is less need of such a law now than at any former time, from the rapid and important improvements that have taken place in our profession, which has gone on at least with equal if not with greater advances than any other of the liberal arts; and which, I believe, has received, and does still receive, a full and ample share of public estimation. I would beg permission to recal the attention of the country practitioners particularly to this subject, and submit to them whether they are not of opinion that they have some reason to decline their renewal of support to a measure which is not likely to be productive of benefit to the public or to the profession?

I am, Gentlemen, your's,

July 18, 1813.

SURRIENSIS,

Is the Division of Diseases into general and local consistent with Truth?

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

UPON reading Dr. Clutterbuck's treatise on fever, published about six years ago, some remarks occurred to me, which I noted at the time, and now submit to you for insertion in the Medical Journal. As I am actuated by no other motive than that of professional improvement, I trust you will not disregard my opinions because they appear unsupported by a name, and though differing from those of Dr. Clutterbuck, contain nothing derogatory to his character as an eminent physician, and learned teacher.

In his able work on fever, Dr. Clutterbuck denies the existence of any general or universal disease, and supports this opinion with a variety of facts and ingenious reasoning. He states, "that, strictly speaking, all diseases are in their origin local, or affections of some particular parts or organs, and never of the entire system." Again, "a disease can only, in strictness, be termed general or universal, when it affects every part of the system at once. But there are evidently none such. The whole system may, indeed, be weakened, and all its actions be consequently diminished, as by loss of blood; but such a state, if it affect all parts equally, is not a disease, though it perhaps strongly predisposes to it. Something more is wanted to constitute morbid action. Under such a state of general weakness, the functions may continue to be carried on, though less vigorously than before, and until one or more of these become deranged

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or interrupted, or until some uneasy sensation is induced, disease can hardly be said to exist."

The learned author then proceeds to examine the Phlegmasiæ, the Hæmorrhagiæ, and the Profluvia, orders of the first class Pyrexia of Cullen; which he determines to be essentially local affections; leaving the remaining orders of that class, the Febres and Exanthemata, for future consideration. With equal dispatch and facility, he disposes of the three other classes.

Of asthenic diseases, we are informed "that debility, though it may give a predisposition to disease, is of itself rarely, if ever, either the proximate or the occasional cause." "It is in general an effect only, and indicates nothing certain with regard to the cure." The practice of giving tonic and stimulant remedies, and administering rich diet and nutritious food in cases of general weakness, is ridiculed and pronounced to be mischievous; because "by increasing the topical affection, they often tend to depress the energy of the system still further, instead of rousing it." As to the opposite state of the system, the inflammatory or sthenic diathesis, with excess of action, the author doubts its existence altogether.

In support of this opinion, it is alleged, "that an increase or diminution of action in one part generally induces a contrary mode of acting in others; and lastly, that the causes exciting disease, all of them, produce peculiar or specific effects; it might naturally be expected that diseases would always be partial or local at their commencement." The Phlegmasiæ, the Hæmorrhagiæ, and the Profluvia, of Cullen's first class Pyrexia, are essentially local, as they are often present without any general disorder of the system; and when a febrile state of the system (which is sometimes the case) does precede these local affections several days, they are to be considered either as complications of proper fever with topical inflammation, or of a conversion of the former into the latter. In this way the author briefly disposes of every disease. I will now attempt to inquire how far his opinion is correct.

The first point to be determined is, what may be regarded as a general disease and what local. The author denies a disease is general, unless every particular function and organ of the body be deranged, and undergoing morbid action; and this immediately after the exciting cause or power is applied. He has here taken a strong position, and if we admit this as the basis of his reasoning, any attempt to dislodge him must be fruitless; for, though we may conceive that every part of the body is undergoing morbid action, it

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is very difficult to prove it; and dissection after death not unfrequently brings diseased parts to view, which had given no previous symptom of having been the subject of disease. The author himself has informed us, that "a disease may consist merely in morbid action, occasioning derangement of functions, without any perceptible alteration of the structure or organization of the part affected; and in such cases no insight into the seat or nature of the disease can be derived from dissection after death."

May we not consider a disease to be general, when from the very commencement a patient complains of universal indisposition, without being able to refer to any particular part or organ as the seat of the disorder? In this state we find the patient affected with general lassitude, cold shivering, headache, or sense of heaviness, soreness over the body, depression of mind, anorexia, and sometimes nausea; the eyes have lost their lustre, the whole countenance appears shrunk and void of animation; in a few hours, or sometimes longer, the heart pulsates quicker, and with greater or less force; the heat of the body is increased, and sometimes perspiration breaks out. At this early period, it is impossible for the most acute and experienced practitioner to pronounce what the future disease is to be; if he sees his patient within six, twelve, or even eighteen hours from the first moment of his feeling indisposed, the practitioner often shall not be able to say whether the complaint will be simply fever, inflammatory sore-throat, peripneumony, measles, acute rheumatism, or in fact any disease accompanied by pyrexia and general indisposition. Are we to regard this as a fair case of disease? If we are, I ask where is the locality of the affection? If the advocates for all diseases being local, deny that it is disease; they may call it predisposition, but where is the distinction, for many cases of acknowledged disease continue and go through their course with no other symptoms? It is not unusual to meet with a complaint, which, from its extreme short duration, has been called *Ephemera*, and *Diaria*. It attacks the patient suddenly without any apparent cause. The symptoms are pain in the head, prostration of strength, and chilliness; in the course of the day, the pulse becomes very frequent, respiration quick and short; the surface of the body red, and the face is sometimes slightly swelled; and in the course of the same day, this complaint terminates with sweating; and I have the authority of *Sauvages* and *Lommius* for asserting that it is not protracted beyond two or three days at most. Surely this will not be called only predisposition; and if it is to be classed under the

the great head local disease, it would be difficult to point out the organ primarily affected.

I think I have now pretty clearly made out that a disease may be general, though we have no direct evidence of each particular organ being deranged; and if, from this enumeration of symptoms, it appears to be so, by investigating as much as we are able the phenomena of febrile disease, its mode of acting on the body, and the means by which it is removed, perhaps we shall be still more confirmed in that opinion. In doing this, however, I shall confine myself, for the sake of brevity, to the consideration of one or two of the febrile diseases; for the same reasoning that will apply to one will be applicable to another. And here it may be proper to observe, that though the author professed in the beginning of his work to demonstrate in a future part of it that the Febres and Exanthemata of Cullen's first class Pyrexia, were decidedly local diseases, he has entirely omitted to prove his assertion, resting satisfied with his intention. Perhaps it might be easier to prove that idiopathic fever is a general disease; but I will take Peripneumony as an instance of what I consider a general disease. It begins with the usual symptoms of fever, and the pyrexia is often present several hours before pain is felt in the chest, or cough is excited, the pulse being frequent and strong; cough, dyspnoea, and pains in the side and thorax, shortly succeed; the expectoration is often streaked with blood; but sometimes, particularly in the beginning, the cough is dry. These are the leading symptoms, varying, of course, in different constitutions, habits of life, age, and season.

The causes of this complaint are chiefly the vicissitudes of heat and cold experienced in the winter or spring seasons. But millions of people at these seasons of the year are daily exposed to every cause of peripneumony without being subject to the complaint. Now I contend that, was it a local affection, were the lungs independent of the system, performing their functions unaided and uninfluenced by any other organs, they would, when exposed to the exciting cause, at all times be liable to the disease in question; but they are not. They are immediately connected with the whole system by nerves, blood-vessels, and absorbents; and before they can be affected as they are in peripneumony, the whole system must be subjected to some change or action, which, if not morbid, is so nearly allied to it, that I cannot distinguish between the two states. Who are principally the subjects of acute peripneumony? Not the feeble; not those of a spare habit and lax fibre: it is the robust, the strong, the free-livers, men from twenty-five or thirty, to forty years of age.

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Whenever the quantity of blood is increased by excess in eating or drinking, by indolence and inactivity, and a general fulness of the vascular system is present; or where its velocity is much accelerated by great exertion in running, or labor; in such a state, particularly where there is a disposition to plethora, and which, in spite of Dr. Clutterbuck's objections, I consider as a sthenic or inflammatory diathesis; in such a state, I say, the causes of peripneumony, viz. the vicissitudes of heat and cold being applied, the symptoms may appear pretty much in the order before stated. The whole system is undergoing morbid action, and the lungs are merely affected as forming part of that system; and I can assign no reason why the disease, under similar circumstances, might not have been acute rheumatism, as well as peripneumony; the two affections are frequently blended together. A strong proof of the system, in either case, being generally affected, is, that the pain frequently moves to different parts; nor does it entirely cease till the general affection of the system is removed. This brings us to the cure; which is so well known to depend entirely upon remedies acting on the whole system, that it scarcely merits notice in this place. Large and repeated general bleeding, and purgatives, not administered so much with the view of merely evacuating the intestines, as to lower the inflammatory state of the system, to effect which every means within the power of medicine is indicated; and when this is happily accomplished, the effect ceases; the patient has nothing to contend with but debility, and perhaps in some cases cough may remain a little longer. If blisters are used, they are merely considered as adjuncts, and as such unquestionably are serviceable. The cough also must be attended to.

In a general disease, requiring general treatment, there may be parts of the system more affected than some other parts, and which, independent of the remedies given to act on the system generally, demand some particular applications, for the more speedy relief of the patients. But a general disease can only be cured by remedies which act universally on the system.

If the preceding observations are correct, I think it may fairly be laid down as a general proposition, that where local affections, or organs undergoing morbid action, are preceded by universal indisposition, the disease may in all cases be regarded as a general disease, to be cured only by general treatment.

To enumerate more instances of general disease, would occupy too much space in your Journal: I shall now, therefore, merely attempt to show what is meant by a local disease;

disease; and offer some remarks upon the importance of discriminating between the two affections. The first characteristic difference between local and general disease, is, that the latter is always preceded by predisposition, the former never; without predisposition there can be no general disease. Thus we occasionally meet with instances where the small-pox cannot be communicated, and it is very properly stated that in such cases there is no predisposition; again, the cow-pox will in general be found to destroy this predisposition. A local disease may be produced by wounds, acrid substances occasioning erosion of parts, in short, whatever produces solution of continuity. This is the simplest species, and belongs to the province of the surgeon. When, however, organs highly sensible become affected, and inflammation is produced, the symptoms are often violent and dangerous; and perhaps it was from considering some cases of this kind which induced Dr. Clutterbuck to regard every disease as local. In gastritis or inflammation of the stomach, a patient immediately preceding the attack is in perfect health; he accidentally or purposely swallows some highly stimulating matter, as corrosive sublimate, pins, ground glass, ardent spirit, &c. &c. and inflammation of the organ speedily ensues; and from the high sensibility of the part, the system becomes generally affected; but this is evidently secondarily. In enteritis, or inflammation of the intestines, the same; and so it is with every acutely sensible organ where matter sufficiently offending is applied. In organs less sensible, or where the exciting cause is less potent, the morbid action is slow, and for a long time confined to the part first affected; thus we often meet with diseases of some of the glands which have existed for months without producing any constitutional disease whatever.

Perhaps a great source of error in the consideration of local and general disease, is, that the same organ is often diseased and its functions deranged very similarly in both cases; this is particularly observable in the stomach, an organ extremely subject to disturbance in its functions. In almost every general disease it is affected from the very beginning, or at least its interrupted action is one of the leading symptoms. Again, it is very frequently primarily affected, and subjected to chronic complaints, which, had the cause applied been sufficiently strong, would have been acute.

To discriminate then between local and general disease is essential to the practitioner. It gives confidence to his practice, and enables him more correctly to form his judgment, and estimate the probable result of the case. When a gene-

ral disease is very speedily accompanied by urgent local affections, usually before we see our patient, it is surely of some consequence to be aware that notwithstanding the violence of the local symptoms, and the distress experienced from the suffering of parts, it is the general state of the system to which we are to direct our chief attention, and apply our remedies. Again we are called in when the whole constitution is suffering from the disease of some organ; and unless from our acuteness of perception, and the previous history of the attack, we discover the real nature of the complaint, we act completely in the dark; and consequently prescribe with the feebleness of timidity, or the temerity of ignorance.

I therefore regard the division of diseases into general and local, as being highly momentous and essentially useful, whilst it strictly accords with nature. What can the advocate of the opposite side of the question gain by his discovery? Though he does consider every disease in its origin to be local, when he comes to treat diseases which are now regarded as general from their commencement, he must prescribe as if treating a general disease; and he loses a very powerful assistant to his judgment, and I fear will be much more liable to error and misconception.

Having now very hastily and imperfectly stated what occurred to me upon the subject immediately after perusing Dr. Clutterbuck's work on fever, I cannot conclude without noticing two arguments upon which he chiefly depends in support of his hypothesis. Though he regards the phlegmasiæ as local diseases, because they are often present without any general disorder of the system, he is fully aware that they are often preceded by febrile action and general indisposition; such cases he contends are cases of proper fever, complicated with topical inflammation; but proper fever, he also contends, is topical inflammation of the brain; therefore, peripneumony must be inflammation of the brain, combined with topical affection of the lungs. So also, cy-manche tonsillaris, measles, &c. being preceded by fever, must be regarded as inflammation of the brain, with topical affection of the throat, &c. Thus the very explanation of his doctrine confutes itself. The only other opinion which I shall trouble you with commenting upon, is, in my apprehension, a very mischievous one, and contrary to truth. The author, in his zeal for establishing the locality of disease, will not admit any general asthenic state of the system; or, if it is present, he contends that it is a consequence of some topical complaint, or diseased state of some particular organ, and by giving what are termed strengthening remedies, we

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increase the complaint by exciting greater action in the morbid part. Unquestionably in some instances this is true; but surely the author must have seen numerous cases of illness where the whole constitution appears to be sinking under debility; where there is extreme languor, feebleness, want of vigor, and general depression; where, in short, the universal frame seems on the verge of dissolution; and where, except general pains in the extremities, back, loins, &c. indeed over all the frame, (which is frequently the case in extreme debility,) no local affection whatever is either complained of or discovered. And how is this state removed, but by the very means which the learned doctor so decidedly condemns? by stimulant and tonic remedies, nutritious diet, pure air, and by every method which affords to the system a grateful and pleasant stimulus.

Having thus freely offered my sentiments upon this interesting subject of inquiry, I hope it will be considered that I have intended nothing personal in my remarks. It is the doctrine merely which I wished to discuss, and I am truly happy in being able to offer a public tribute of my respect for the worthy author, with some of whose opinions I have had occasion to differ; whatever may be our sentiments of his peculiar theory, the work in which it is developed contains much valuable information and ingenious disquisition; and no man capable of understanding it, can rise from its perusal without being benefited by his labor,

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For the Medical and Physical Journal.

*MEMORIAL, by DR. HENDERSON, addressed to the COMMITTEE who undertook the INVESTIGATION of ANN MOORE'S CASE.

HAVING understood that Ann Moore has, within these few days, given her consent to a repetition of the watching of her person, I would beg leave to call the attention

* At the time we stated, at page 79 of this Journal, our opinion of the observations made by Dr. Henderson in his pamphlet, being the means of bringing out a complete detection of Ann Moore, we did it on the publicity of the circumstance, not having then received any private intimation of a contrary fact. If we have been in an error in this particular, we acknowledge an obligation to Mr. Webster. Our great wish is to lay before the public as much of clear and incontrovertible fact as possible. As an opinion, however, our former assertion has not lost its weight, for we still think that the investigation

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tion of the gentlemen who may undertake the task, to those precautions which, it appears to me, ought to be observed on the occasion.

In the first place, as it is evidently the interest of the inhabitants of Tutbury to encourage and support an imposition which attracts so many visitors to their village, I think that Ann Moore should be removed from Tutbury to some place in the neighbourhood, as, for instance, to Burton, where the chance of connivance and collusion would be less.

With regard to the gentlemen who may undertake the office of watching, it is of the utmost importance that they should be free from all suspicion of an undue bias. None of Ann Moore's private friends, no one who has had much previous communication with her, no one who has committed himself on the subject of her fasting, by writing, or otherwise, ought to be permitted to approach her person while the trial continues. The number of watchers should not exceed four, or at most six; and of these only two should attend at one time, except when any general communication is to be made. It would be desirable that half of the number should be medical men, of whom one should be constantly present, or within call. A regular and minute journal of their observations and proceedings must be kept. They may relieve one another every six or eight hours.

In conducting the watch, the following particulars ought to be attended to. The patient being removed to a proper situation, should be placed in a room that does not directly communicate with the street, as was the case on the last trial. The bed should be without curtains, and must be carefully examined, before the watching commences, and when it terminates. It would be well to have it so constructed, that she can be weighed, while lying in it. At all events her body ought to be weighed at the commencement, and at the end of the watching, and twice a-day during the continuance of it. No one, except the persons employed in conducting and superintending the watch, must be permitted to enter the room, or, if allowed to do so, a screen, or rail, ought to be placed so as to prevent them from approaching within a certain distance from the bed. No food ought, on any pretence, to be introduced into the room;

and examination of Ann Moore's case by so acute an observer as Dr. Henderson, had a principal if not an exclusive share in the *denouement* at Tutbury. The above *Memorial* will show how much Dr. Henderson has interested himself on this subject, and also how far the Committee may have been indebted to him for the mode of conducting the watch.—EDITORS,

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and if the patient require water for the purpose of washing her face, it should be allowed only once a-week, the time that she has herself specified as the period of such indulgence; and then the operation should be performed by another person, not by herself. Her pulse and respiration, and the temperature of her body, ought to be from time to time examined; and it should be ascertained whether she sleeps soundly, or only slumbers.

Other observations will doubtless suggest themselves to those who superintend the watching; and further precautions may be necessary: but any omission of, or material deviation from those which I have particularized, will render the proof afforded by a new watching very unsatisfactory and inconclusive. The artifices of impostors are endless, and the most observant may be sometimes deceived. One of the alleged fasters, to whose history I have adverted in my "Examination of Ann Moore," and who was watched in an apparently unexceptionable manner, at two different periods, was at length discovered to have supported herself by means of food concealed within the hem of her gown: and another carried on the imposture by means of a box made so as to resemble a bible, which served as her provision chest.

G. S. April 5, 1813.

A. H.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

THE account which I sent to the Edinburgh Journal respecting the late investigation at Tutbury, having been strangely mistated by Mr. Webster in your last Number, will you permit me to notice some of his errors and misrepresentations.

He maintains that when the watch on the impostor, Ann Moore, broke up, she exhibited "the usual appearances of a person in a dying state." It is now known, however, that she assumed these alarming appearances to avoid, for obvious reasons, being removed from the bed on which she lay. Having gained this point, the appearances of approaching death suddenly vanished. She raised herself up, washed herself, and then said to Mr. Bott, who did not leave the room for some time, "You see, Mr. Bott, I'm not much worse!" As I, therefore, just mentioned, in my paper in the Edinburgh Journal, the circumstance of the illness being in a great degree assumed, when she seemed to be in a dying state, Mr. Webster tells your readers that I deny that she

190 Mr. Bellingham on *Hepatic and Pneumonic Inflammation*.

she was ill at all, and that I look upon the syncope, the change of pulse, and, I presume, the loss of flesh, as having ~~nothing~~ to do with the ten days abstinence, but as being altogether *feigned*. I beg, therefore, to be allowed to correct these misrepresentations, and to say that the opinions which Mr. Webster ascribes to me are to be found only in his *misquotations* of my paper.

Having also mentioned that on the tenth day of her abstinence the woman was in a state of syncope, the pulse *indistinct*,* Mr. Webster makes me say that the pulse *was* 140! and exultingly puts this absurd question—"Whether it was possible to feign (I do not like, he says, the word simulate) syncope with a pulse at 140, and indistinct?" Why Mr. Webster has committed such mistakes in representing my opinions, I can no more explain than I can the rude spirit of contradiction which pervades the whole of his animadversions. I remain, Gentlemen,

Burton-upon-Trent,
August 10, 1813.

Your most obedient Servant,
BENJAMIN GRANGER.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

I OFFER the following case, merely to add one more instance to those already on record, of the ambiguity of the most prominent symptoms of pulmonic and hepatic inflammation; and of the probability of forming, without the closest attention, an incorrect diagnosis between them.

June 28d, I visited Mrs. Hartfield, a woman about 40 years of age. She complained of most acute pain of the chest; referred to a part just below the left breast; it was felt especially during inspiration, and was much aggravated by a recumbent posture. There was much oppression about the præcordia, with a frequent dry and painful cough. She had been laboring under these symptoms, gradually increasing, for three days, and the attack had been ushered in by repeated rigors; the pulse was quick and thready, about 110; the tongue much furred; the skin hot and dry; and the bowels torpid; she had constant nausea, and occasional vomiting. I immediately took \mathfrak{Zxvj} of blood in a full stream

* The remarkable acceleration and sudden change of the pulse, will, I think, be best accounted for from the irritation of the over-distended bladder. Dr. Currie and M. Delletan have shown that the pulse undergoes surprisingly little change in cases of inanition.

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from the arm, and ordered her the following pill at bed-time: *R. Opii gr. j. Hydr. Submur. gr. iv. M.* and in the morning a mixture containing *Magnes. Sulph. ʒj.*

24th.—The sickness was relieved, and the bowels briskly moved by the medicine. She had passed a quieter night; the pulse was rather more full, but the symptoms in other respects the same; ʒx of blood was taken from the arm, (that which I had previously taken exhibiting the strongest marks of inflammation;) a saline mixture directed to be taken every four hours, with an opiate at night.

25th.—The pain of the chest and cough still more severe; the mouth parched; the skin hot and dry. Repeated the blood-letting to the same extent; ordered a blister to the left side, and the following pills: *R. Hydr. Subm. gr. iij. Ext. Colocynth. C. gr. xv. M. ft. pil. iv. statim sumendæ.* The saline medicine was continued, with the addition of *Tinct. Digital. gtt. v.* to each dose, and she was desired to drink *Infusum Lini*, with a small quantity of nitre in solution.

26th.—She considered herself much worse; had passed a very restless night; countenance was expressive of the greatest anguish; tongue, teeth, and lips, covered with dark sordes; the pulse 126. The pills had produced several dark-colored and very offensive evacuations. The little relief she had hitherto experienced from general blood-letting, together with the appearance of the alvine discharge, made me doubtful, notwithstanding the reference of the patient's feelings, whether the thoracic viscera were really the seat of inflammation; and upon examining with greater care than I had previously done, I found very considerable tenderness on pressure about the region of the liver, and, as far as I could judge by the most cautious touch, an unusual degree of fulness. I immediately took away a few ounces of blood, by means of cupping glasses applied to the margin of the ribs, and ordered her the following pill to be taken every four hours. *R. Hydr. Subm. gr. j. Ext. Colocynth. C. gr. v. M.*

27th.—The acute pain of the chest had entirely left her, and she now complained of pain, of the obtuse kind, of the right side. The tunica albuginea of the eyes was becoming slightly suffused with yellow; the urine high-colored. Leeches were applied to the hypochondrium, and drew blood freely. The pills and opiate at night were continued.

28th.—The tenderness of the side lessened; cough very troublesome. The whole skin was now becoming strongly tinged with bile. The pills had produced frequent evacuations, the appearance of which improved. *Applicetur Hypochondrio dextro Emplast. Lyttæ Amplum.*

29th.—Feels much easier. Pulse 130 and very small. Had been for a short time in a general perspiration. *R. Hydr. Submur.*

Submur. gr. i. Opii, gr. ½. ft. pilula 6ta quaque horâ sumenda.
 R. Infus. Calumbæ ʒvj. Bibat 4tam partem 4ta quaque horâ.

She continued these remedies for a few days, occasionally interposing a dose of the Ext. Colocynth. C. with the most manifest advantage. The evacuations from the bowels were much better, and it became evident that the liver was resuming its healthy function. The ictoritious color of the skin soon disappeared.

July 3d.—Apthous ulcerations of the mouth and throat troubled her so much as almost to prevent her swallowing; and she had at the same time severe griping and irritation of the bowels. These were soon relieved, the former by the use of astringent gargles, the latter by opiates. Scaly eruptions appeared afterwards about the mouth and nostrils. From this time she was quite convalescent. She necessarily remained in a state of great debility, but from this, by the assistance of tonic medicines and a more generous diet, she is now fast recovering.

That this was a genuine case of hepatitis, few, I apprehend, with even this imperfect detail before them, will be more disposed to doubt than myself. It shows how easily we may be misled if we are guided only by the reference of a patient's feelings, and how necessary it is to trace the seat of disease by manual examination, which in a case like this will be an unerring guide.

The complaint had proceeded to its greatest height before the least degree of pain was felt in the region of the liver, and the transition afterwards was remarkable. The acute pain of the left breast ceased entirely from the moment that of the right side was first complained of, nor was this in the least degree owing to the patient's attention being diverted from the former.

That general blood-letting in inflammation of this viscus should give *less*, while local bleeding and purging should afford *greater* relief than in pneumonia might, *a priori*, be expected, when we take into account the peculiarity of the hepatic circulation, the disproportionate quantity of arterial to that of venous blood it transmits, and the office it performs.

I will not occupy your Journal with an useless speculation upon the particular *modus operandi* of local bleeding in this disease. The plain fact few practitioners will deny, though each, perhaps, may suggest a different theory to explain it. That it proved in this case, and has proved in many others of a similar kind, far more useful than the abstraction of any quantity of blood from the arm, I have not the smallest doubt. I have the honor to be, Gentlemen,

Cuckfield, Sussex,
 July 18, 1813.

Your most obedient Servant,
 R. BELLINGHAM.

To

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

AS Portal's valuable book on Apoplexy may not be in the possession of many of your readers, the following compressed translation of his two memoirs prefixed to that work, will perhaps be thought worthy a place in your Journal, particularly as they contain the substance of the doctrine expanded in the body of his publication.

Halesworth, I am, Gentlemen, your's, &c.

August 6, 1813.

C. ABEL.

On the NATURE and TREATMENT of APOPLEXY.

Memoir the First, by PORTAL.

THE most ancient physicians considering Apoplexy as the effect of a compression of the brain, almost all recommended the same treatment, to which blood-letting was essential; but in later times physicians having divided this disease into two species, the sanguineous and serous or pituitous, imagined that each was announced by particular signs, and required a different treatment.

In sanguineous apoplexy, they remark, the countenance is more or less red, the eyes are prominent and shining, the pulse is full, and the veins of the face and neck appear gorged with blood.

In the serous or pituitous apoplexy, they add, the face is pale and livid, the mouth filled with foam, and the pulse more small and contracted than in the sanguineous. It is so much the more essential, says Sennert, with most of the physicians followers of his doctrine, to know the signs which distinguish serous from sanguineous apoplexy, as it is necessary to treat the two diseases differently; the remedies which are useful in the latter would be fatal in the former, particularly bleeding; it is the most powerful resource in sanguineous, and would be the most fatal in serous apoplexy. Such was the doctrine of the celebrated physicians who preceded us, and such is that of the most distinguished among the moderns. "A venæ sectione," says M. Lieutaud, "nimium abstinere præstat; quæ tanto est nociva in hacce apoplexiæ specie, quanto propina in alterâ."

I had adopted this doctrine in my practice and in my lectures, when I had occasion to open the body of a barrister, who died after experiencing all the symptoms of serous apoplexy, as profound sleep, stertorous respiration, foaming at the mouth, and cadaverous paleness of the countenance; bleeding was not tried, an emetic and the volatile alkalis

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were administered, and blisters applied to the legs and nape of the neck.

It may be said that no remedy was omitted which had been prescribed in parallel cases by the masters of the art ; yet these means were unavailing, though so strikingly indicated. Scarcely was this barrister dead, when the paleness of his face diminished, and it became in the space of two or three hours of a crimson redness, and the heat of the body more sensible than in the last moments of his life ; and was so considerable twenty-four hours after death, that I thought it right to defer the opening of the body to the next day ; but I made some scarifications in the bottom of his feet, and obtained about two spoonfuls of very red and liquid blood.

Forty hours after death the body was examined ; it had now no warmth, and the visage was rather purple than pale. I opened the head with caution, and observed the following appearances : the vessels which wind along the pericranium, those of the dura and those of the pia mater, were full of blood ; the vessels which meet between the circumvolutions of the brain, and in the anfractuositities of that viscus, were dilated and puffed up by this fluid ; it appeared as if the brain was covered by an injected vascular lacework ; the plexus choroides was equally gorged with blood, and there was much affused in the base of the cranium ; the ventricles of the brain were dry, we found not a drop of affused water. These circumstances evidently proved to us that this case was one of sanguineous not of serous apoplexy ; and that other remedies than those resorted to should have been tried, especially blood-letting.

The following is another example, proving that paleness of the countenance, foaming at the mouth, and contraction of the pulse, joined to coma and stertorous respiration, do not in any manner indicate serous apoplexy. In the month of June, 1773, M. Bertrand, brigadier of the grey musketeers, commanded a detachment of his company on the plain Des Sablons : his horse fell backwards upon him, and he could not rise ; his countenance was of a cadaverous paleness, his pulse small and contracted, and his respiration became very oppressed and stertorous. This officer was supposed to have suffered an apoplexy of the humors, and in consequence a powerful emetic was administered without effect ; and, what will scarcely be believed, he was not bled. Called to his assistance, I blooded him in the jugular ; the pulse rose, and became more strong and regular ; his senses appeared returning, he vomited a little, and moved his superior extremities. In the evening M. Borden was called in consultation ; we applied blisters to the legs and nape of the neck ;

neck ; vain resource ! the patient relapsed into a stupor, and died with all the symptoms of apoplexy. I attended on the following day at the opening of the body with several physicians and surgeons ; much blood was found in the cavity of the cranium affused under the hemispheres of the cerebrum and cerebellum, and the vertebral canal was full of concrete blood ; the ventricles contained the usual quantity of serosity, which is more abundant as the opening of the body is longer delayed. This dissection satisfied us that bleeding should have been insisted on sooner, and to a greater extent. I could cite in this place other observations, the result of which would be the same.

Instructed by these errors, I bled in the foot and in the jugular some persons who were supposed to suffer under serous apoplexy, and by this means only they were preserved. The Marquis of Breda, two years ago, was attacked with apoplexy ; he is a very large and coarse man, and was then about fifty-five years of age. He was found senseless in bed, with stertorous respiration ; his face of a deadly hue, his lips covered with foam, his pulse small and contracted. From these symptoms he was thought to labor under serous apoplexy, and an emetic was prescribed, which had not operated when I arrived, and I advised an abundant bleeding from the foot. Whilst the blood flowed the pulse rose ; the respiration, which was interrupted, short, and oppressed, became more free, but remained stertorous. We gave an emetic, which produced no effect. I recommended a second bleeding in the foot, which was scarcely finished when the patient moved his eyes, raised his eyelids, and appeared to consider the objects before him. We observed the lower lip to move at different times ; these motions often precede vomiting, which very soon followed ; the patient brought up a large quantity of frothy matter, and very little else ; we gave him an emetic, and it produced a copious evacuation ; the limbs recovered by degrees sensibility and motion ; respiration almost regained its natural state, but he remained for several hours unconscious of the loudest sounds, and still longer without the power of speech. He was in this last state when I returned to him ; he made several signs to render himself understood, which I could not comprehend, but I at length discovered that he wished to write, and he wrote with a trembling hand these words : " Do you not observe that I cannot speak." I advised a third bleeding, which, though not performed till two hours afterwards, was so successful that the patient spoke during the operation. The patient owed his re-establishment to the large bleedings : the blood accumulated in the vessels of the brain produced

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without doubt a compression of that organ, and of the origin of the nerves, which could no longer transmit sensibility to the viscera or mobility to the muscles. Was the emetic of no effect, and in what way could it act? It could only exercise its action by stimulating the stomach, which to disembarass itself contracts in proportion to the sensibility of its nerves and the irritability of its muscular fibres. But as the stomach of the patient in question was as insensible as every other part, the emetic could not be effective; it is when the compression of the brain and nerves is diminished that the stomach regains a part of its sensibility, and becomes capable of receiving the impression of the emetic. In the same manner other organs gradually recovered their functions. The Marquis of Breda has since enjoyed good health.

I could here mention other very analogous observations, proving that the symptoms from which it has been usual to infer the existence of serous apoplexy are delusive, and that those who were supposed, in consequence of these symptoms, to suffer under serous, were affected with sanguineous apoplexy.

But if paleness of the countenance, foaming at the mouth, small and contracted pulse, joined to the other symptoms of apoplexy, do not surely indicate the presence of water in the cranium nor in the brain, redness of the face and fulness of the pulse are not more certain signs of excess of blood in those parts. Those who suffer under hydrocephalus, as is generally known, have the cheeks very red; but what is not equally so, is, that in many apoplectics who have had the countenance very red and the pulse very full, and who have not had foaming at the mouth, water has been found between the brain and cavity of the cranium, in the ventricles of the brain, or in both these situations at the same time.

The body of a man was brought into my private theatre whose face was tumefied, and of a black color, as if covered with echymosis. I thought this man had died of apoplexy produced by the stagnation of blood in the brain; but I was convinced to the contrary on opening the body. I found the ventricles of the brain full of a yellowish humor, and the plexus choroides covered with hydatids, two or three of which were as large as the seed of a grape, and full of water; others were torn, and perhaps had allowed the water to escape which the ventricles contained; however this might be, there was no blood stagnant in the vessels of the brain, or effused into the cavities of that viscus, or into those of the cranium.

In 1767, a butcher died with all the symptoms of sanguineous apoplexy: he was naturally very fat, and during the

the attack was rather black than red: he had some foaming at the mouth, and his pulse was full and contracted. This patient died unrelieved by all the remedies which were promptly administered.

I assisted at the opening of the body by M. Leduc, and the following appearances were observed:—the ventricles of the brain were filled with a reddish serosity, and the plexus choroides were loaded with hydatids of a considerable volume.

We find in authors, and particularly in Morgagni and Lieutaud, some observations of a similar tendency with those just given; but as they have not drawn from them the same consequences which we have deduced, and as points of doctrine are involved in this discussion which cannot be too well established, whether we consider their importance or how little they are understood, I have thought it proper to bring into this memoir my own particular observations.

Anatomy is never more useful to medicine than when it unveils its errors.

I propose in another memoir to prove that the vessels of the brain are almost always gorged with blood when any serosity is affused into the tissue or cavities of that viscus; that serous is almost always the termination of sanguineous apoplexy; and that serous apoplexy without congestion of blood in the brain is a very rare occurrence.

End of Memoir the First.

P. S.—In my communication to Dr. Kinglake, No. 172, p. 454, the following sentence, “to every one who, by reasoning or the statement of facts,” was mis-printed “*on* the statement of facts.”

(To be continued.)

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

THE difference of opinion which originally took place on the disputed case, arose entirely between Mr. Gibbon and myself on account of the symptom of vomiting of urine. I could not agree to the opinion that such a symptom was totally impossible. This circumstance rendered the case notorious. The *onus probandi* then lay with me, which induced me to say, in the conversations I had with individuals, that I would publish and prove it. The paper on Ischuria contains the reasons and proofs of my opinion, and I am not the only one who considers the facts adduced in that paper

as placing the occurrence of the disputed symptom, even for a considerable length of time, beyond the possibility of a doubt, as the Q. E. D. and the redemption of any pledge I may have given on this point. My feeling has been all along absorbed in the consideration of this subject, and but for the denial of the utter possibility of the symptom, I should not have engaged in the discussion at all. The reasons for publishing the paper in the form in which it appears are before the public. Having thus published according to what have been my feeling and intention as to the immediate redemption of any pledge given, the *onus refutandi* now rests with any gentleman who thinks proper to dispute the point; but an explanatory answer, if it appeared necessary, would be more immediately due from me to Mr. Gibbon, as between us the difference of opinion originally commenced.

That I have said I would publish the case, and that that expression was uttered with an intention on my part so to do, I do not at all dispute; but, however forcibly or loosely such expressions came from me, the times and seasons for such a production are certainly to be chosen by me. Not feeling myself under any public pledge properly so called, more especially after the paper on ischuria, adducing proofs of vomiting of urine, the original and only matter of difference notoriously between Mr. Gibbon and myself, I cannot acknowledge the right to demand that which a willing endeavour would be made to grant, to the wishes of Mr. Pulley or any other gentleman whatsoever.

Nothing that I have personally witnessed, or that has been stated to me by the patient herself, conveys to my mind the conviction of imposition. If, however, facts are known clearly proving that the patient has practised the arts of imposture, let all these circumstances be communicated, for it must not be forgotten that I was not present at the meeting of the gentlemen who took these circumstances into consideration, as mentioned in my last communication. In any stage of an inquiry, unquestionably I would readily yield my assent that imposition was practised, if circumstances had sufficient weight with me to produce that conviction; but if that opinion is to be maintained solely on the ground that vomiting of urine, even for a considerable time, is utterly impossible, I have stated the facts from which I must continue an infidel on what was the original question, and which was the only point I ever considered myself strictly bound to prove.

Bedford, August 8, 1813.

G. D. YEATS.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

THE jealousies and dissensions which exist between medical men cannot be too highly censured, since they are truly disgraceful to a profession which is confessedly of the most liberal kind. A man of eminence who dares to publish to the world an important discovery, and which bids fair more effectually than any other to restrain the ravages of disease, will perhaps risk the loss of that reputation which his superior acquirements have justly attained for him, by the interference of an officious contemporary, who, in the plenitude of his zeal, vociferates that either he has previously made use of the same remedy for the same disease, or that it may be met with in some ancient or modern publication.

I was particularly led to these observations by reading a paper, in your excellent Journal for June, on the utility of Nausea in Ophthalmia and other Diseases of the Eye, by Mr. Fielding of Hull. This gentleman sets out with an encomium on Mr. Adams's method (which is inserted in a former number), but apparently only with the view of introducing his own, and thus, as he seems to think they are in every respect similar, he takes away from Mr. Adams the merit of originality.

It is foreign from my present purpose to make any remarks on the rationality of the practice recommended by either of these gentlemen, but it appears evident to me, that if the same effect be brought about by nausea as by active vomiting, it must be the product of causes diametrically opposite to each other. In order to substantiate this assertion, it is necessary for me to consider the effects of nausea and of vomiting on the constitution, and thus, by contrasting them, point out their dissimilarity.

Nausea, by acting primarily on the stomach, seems, as a consequence of that action, to depress very materially the powers of the whole system. The patient, even if he be of the most athletic make, and consequently previous to the administration of the nauseating matter could have made effectual resistance to the most powerful efforts of restraint, becomes deprived of all muscular energy, occasioning the highest degree of prostration of strength and listlessness, so that he is not only unable but also unwilling to struggle for liberty, if even such were necessary. The same general cause represses, to a certain degree, the action of the heart and arteries, which, being thus rendered incapable of propelling

pulling their contents onward to the extremities, give to the surface of the body (especially the cheeks and lips) a pallid death-like appearance; and I make no doubt that if the patient be at this time laboring under ophthalmia, and the vessels of the conjunctiva injected with red blood, they also will be emptied of their contents, and will put on their naturally healthy appearance. In short, the effects of nausea are a relaxation of the voluntary muscles, and also of the involuntary so far as the heart and arteries are concerned.

Could the degree of nausea be carried to an indefinite extent, I make no doubt but the powers of life would be ultimately extinguished by it; but here nature seems to have placed an effectual barrier, for by increasing the nauseating matter, instead of increasing the nausea we excite vomiting, and thus effects very opposite to those I have been describing are produced; for now, instead of a relaxation of the muscles, instead of a languid circulation and a death-like listlessness, nature is roused to make a powerful effort to get rid of the offending matter; the muscles, not only of respiration, but also of the extremities, are thrown into strong contractions, and the heart and arteries propel their contents onward to the ultimate branches with increased velocity; so that it frequently happens, during violent vomiting, the delicate vessels of the conjunctiva covering the sclerotic coat are ruptured, and blood consequently extravasated into the cells of the reticular membrane, constituting what is called a blood-shot eye; the pulse, instead of being so quick and feeble as scarcely to be felt or counted, as we find it to be during nausea, now bounds under the finger; and the face, partly owing to the pressure of the contracted muscles on the veins hindering the return of the blood through them, and partly to the increase of circulation, is suffused with a dark crimson hue, and apparently swoln, instead of being flaccid and deathly pale.

Having thus endeavored to contrast the different effects of nausea and of vomiting, I shall briefly conclude by asking, where is that similarity of action between them which can justly give rise to the following conclusion—because one of them is a useful remedy for a particular disease, the other, acting on the same principle, must also necessarily be so? The only difference is, that the latter is more decisive in its effects, because it is more powerful in its operations.

I remain, Gentlemen,

*Clifton, Bristol,
August 9th, 1813.*

Your obedient Servant,
C. W. S.

To

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

THE very polite manner in which you inserted a compliment paid to my writings by a correspondent signing himself Ephebus, induces me to notice another paper contained in the same number. Mr. Aber, with a proper sense of justice, claims for Mr. Borrett a priority in suggesting a practice which has lately been much noticed: I mean the similarity between inflammation of the stomach and rabies canina. Without wishing to lessen the merit of that gentleman, give me leave to add, that a year before the date of his paper, in the last edition of *Morbid Poisons*, page 380, speaking of hydrophobia I have concluded thus: "In this surely it would be justifiable to push the *auxilium anceps* of Celsus much further than has hitherto been attempted, and not only the constant fatality of the disease, but the symptoms of a case of inflammation of the stomach, as described by Dr. Innes,* would sanction such an attempt.

After having turned to the paper to which Mr. Aber has directed your readers, (*Med. and Phys. Journal*, vol. xxi. p. 268) you must indulge me with a very few remarks. Without insisting on the turgescence of the vessels in the pia mater, the uncertainty of which I am ready to admit, it cannot be questioned that the appearances about the brain were those of inflammation. The affusion over the lobes, the firmness of the brain itself, and the fluid in the different cavities, are enough to ascertain this point. But the candour of Mr. Borrett will excuse me if I conceive the marks of inflammation about the stomach not so well ascertained. "The upper part of the œsophagus (says that gentleman, page 271) appeared free from inflammation, and covered with its fine cuticle till within four inches of the cardia, where there were evident marks of inflammation. The cuticular covering of the œsophagus was seen at this part as it were terminated by a loose frittered edge, and from this point to where the œsophagus expands into the cardiac orifice of the stomach, the cuticle was wholly gone. The œsophagus at the cardia, and for two inches upward, shewed strong marks of having undergone great inflammation. The cuticle was completely destroyed. The mucous membrane

* See *Edinburgh Medical Essays abridged*, vol. ii. p. 361. This patient, under the symptoms of hydrophobia, recovered after losing a hundred and sixteen ounces of blood.

had passed through the first stage of inflammation, had lost its redness and assumed an ash color, with dark-colored patches. The cardia had the same dark-colored spotted appearance, and the inflammation extended to nearly the breadth of the palm of the hand on the upper orifice and larger end of the stomach, which had a studded appearance of red points; these points becoming fainter as the inflammation extended in the direction of the larger curvature. In appearance the redness was not unlike a well-injected maternal part of the placenta. The rest of the stomach appeared free from inflammation."

I shall not pretend to urge that such a stomach had not been inflamed, but an attentive comparison of Mr. Borrett's accurate description with Mr. Hunter's account of the digestion of the stomach after death, may induce him to think with me that most of the appearances were rather to be ascribed to that cause than to inflammation. I shall only notice Mr. Borrett's happy allusion to a "well-injected maternal part of the placenta," and it may not be uninteresting to compare the appearances of the two as given by Mr. Hunter. "When we cut into the placenta," says that accurate pathologist, "its whole substance seems little less than a net-work, or spongy mass, through which the blood-vessels of the foetus ramify; and indeed seems to be principally formed of the ramification of those vessels: it exhibits hardly any appearance of connecting membrane."*

In his paper on the digestion of the stomach after death, he describes two forms in which that phenomenon occurs; one in which the whole substance is eroded, and the contents of the stomach found loose in one of the cavities: this is uncommon. The other is so frequent that "there are few dead bodies in which *the stomach, at its great end*, is not in some degree digested; and one who is acquainted with dissections can easily trace the gradations." (Here Mr. Hunter, probably, would have explained himself, one who is in the habit of always examining those parts with a view to this particular appearance.) These gradations depend very much on the season of the year, and the mode of dying. If in the summer, the patient being in previous high health, and killed by violence soon after a meal, the substance of the stomach is sometimes completely eroded; but this is rare. If at any other period of the year, (and the progress to death has been rapid in all its stages)—"to be sensible of this effect

* Animal Economy, p. 167, 2d edition.

nothing

nothing more is necessary than *to compare the inner surface of the great end of the stomach* with the other parts of its inner surface: (the latter or) the sound portions will appear soft, spongy, and granulated, and without distinct blood-vessels, opaque and thick, while the others will appear smooth, thin, and more transparent; and *the vessels will be seen ramifying in its substance;*"* that is, by the digestion of the more spongy parts, the blood-vessels will be denuded, and even their finer extremities eroded, as appears by the rest of the paper, in consequence of which those vessels, from their transparency and number, will be all that occupy the sight, with here and there the studded appearance of red points so accurately marked by Mr. Borrett, and which, in the placenta, form the termination of the arteries.

We are much obliged to Mr. Borrett for a number of other cases he produces from different authors. These I shall notice in their order. Dr. Ferriar's cases so exactly correspond with Mr. Borrett's, that the same remarks may serve for each. Mr. Astley Cooper's cases appear to be inflammation of the stomach, but here we have no account of erosion, the patches of blood being effusions into the cellular substance, which cellular substance was destroyed by digestion in Mr. Borrett's and Dr. Ferriar's cases. Mr. Cooper's remarks on the dog's stomach, have been finely illustrated in Mr. Gilman's valuable publication. Dr. Beddoes's first case exhibited the fairest marks of inflammation about the pharynx, larynx, glottis, and neighbouring parts: his second case showed inflammation in the dura mater, the mucous membrane in the cervix of the bladder, and the villous coat of the ileum. In Dr. Powell's case there was at least as much appearance of inflammation in the head as in the stomach.

The mention of erosion in Dr. Pinckard's case, marks, as in the others, a digestion rather than inflammation of the surface. This is, in my opinion, confirmed by the description of the spotted and circumscribed redness below the cardia. All this will, I trust, be considered as matter of conjecture, which I am sure the candour of those gentlemen will receive only as offered to their further reflection.

After this, it may perhaps be expected that I should offer my own opinion, which I the more readily do, in hopes of being set right, or of receiving further information from the same gentlemen and your other correspondents.

* *Animal Economy*, p. 229, 2d edit.

† *Med. and Phys. Journal*. vol. xxiii.

That rabies is an inflammatory disease, most of the cases on record testify; but it appears as if the inflammation did not always fix on the corresponding parts of different subjects.

The valuable communication of Mr. Surr, contains the dissection of two, and the symptoms in four horses that died of this disease. The result of the whole is, that no inflammation of any consequence was found, excepting in the mucous membranes; and that different membranes were inflamed in different degrees in each. "In one the stomach had suffered inflammation even to gangrene; in the other no such appearance was found. The former of these horses neither ate nor drank during the symptoms, the latter did both: the œsophagus of the former was slightly inflamed, of the latter not at all. The appearance of the mucous membrane of the bladder in both was precisely the same. The urethra of each was inflamed. In one the whole mucous membrane, from the cribriform bone to the ends of the larger bronchial ramifications, was inflamed. In the other only five or six inches at the bronchial end, and scarcely entering the ramifications." After a few other remarks, Mr. Surr very judiciously observes, that the variety of symptoms, as well as of the seat of the diseased appearances, may teach us to account for some varieties of both, which have occurred in the human subject.

Mr. Gilman's publication furnishes us with some invaluable cases of his own, and judiciously selected from others. In many the stomach showed evident marks of inflammation, but this was neither constant nor uniform.

I shall mention only one other case, which, though not examined after death, strongly confirms Mr. Surr's opinion, that the seat of the disease is in the different mucous membranes. Mr. Bellamy is described by Mr. French as suffering an *unusual* titillation about the urethra, a contraction of the scrotum and penis to a degree of pain, and an emission of semen after making water, to which he had frequent calls. Dr. Fothergill confirms this account.* There can be no question in this instance that the urethra was inflamed, and probably the bladder.

Having now, I trust, brought forward a sufficient number of well-authenticated facts, the first remark I would make is, that in all subsequent examinations it is greatly to be desired that the inspections should not be confined to the head and stomach, or its communication with the mouth and neigh-

* Fothergill's Works, by Lettsom, vol. ii. p. 226 et seq.

bouring

bouring parts. That by the various parts which have been found inflamed, it may at least be doubted whether these local actions are any thing more than sympathies, with some universal action excited in the constitution by the hydrophobic poison.

The appearances of local inflammation, it must be admitted, have in most cases been insufficient to produce death, as far as we may judge by analogy in other diseases. But it should be remarked, that the most fatal form of inflammation is that which continues increasing without any of the usual modes of termination. Thus in those unfortunate cases of inflamed throat, by which we have lost two valuable members of the faculty, no appearances of suppuration or gangrene were discovered. In croup we have sometimes an effusion of coagulated lymph; but this is neither necessary nor constant in the worst forms of the disease.

The next conjecture I would mention, and I hope all that I have said beyond the statement of facts will be considered as conjecture, is, that the hydrophobic poison may, like some other poisons, be determined in its influence to particular orders of parts, but not with the same certainty to the same parts in that order. Thus we find the variolous poison as well as the varicellous determined to the skin, and though usually with most violence to the face, yet this is not constant—the morbillous to the skin, and the membrane lining the bronchiæ—the poison of scarlatina to the throat and skin, sometimes both, and sometimes discoverable in only one. The venereal poison, when affecting the constitution, attacks occasionally the throat, the skin, and the bones; and we find a regularity in its progress to these different orders of parts. The atmospheric poisons have also their orders of parts. The deleterious air of hospitals, camps, and ships, besides the fever it induces, seems chiefly to exert its local influence on the brain; and in some cases where the effluvium has been particularly concentrated, death by apoplexy has almost superseded the accession of fever. The influenza produces its effect principally on the fauces and bronchiæ; and the autumnal impregnation of the atmosphere chiefly on the intestines, in the form of dysentery. The plague, however deleterious, shows its local effects principally in the glands.

In a review of the effects produced by these poisons, we have observed, that in some instances an affection is induced on several parts of the same order, in others only individual parts are affected, different in different subjects, but still confined to the same order; and we shall see that sometimes every part in that order may escape. Thus in the venereal disease

disease the bones are sometimes found affected, usually the hardest, but it is uncertain which, or whether any. In the plague the glands, under the axilla, or in the groin, or in both, and even in the internal cavities: but sometimes the fatal issue supersedes every local affection.

In some of the worst cases, too, local affections occur apparently unconnected with the order of parts to which the poison is usually determined. Thus extensive ulcerations, like the carbuncle, are found in the plague, without any connection that we can discover with the glands; and in the early stages of the most inflammatory small-pox, we have inflammation of the pleura, or of the peritoneum, and always in a certain degree in the brain. The last may perhaps be considered in no other light than as symptomatic of some violent action excited in the constitution, and is probably always present in different degrees in every case of delirium.

It may be urged, that all I have said tends to throw greater uncertainty on the seat of hydrophobia. If this were really the case, it would be of less consequence should it lead to any certain diagnostic by which we may ascertain the proper mode of treatment, and act with as much decision and courage as the rapidity and usual fatality of the case demands. With this view I have endeavored to show that the variety of appearances in hydrophobia, described by different authors, is not greater than what is observed in other morbid poisons, the nature of which is better understood: that if these appearances cannot be all imputed to inflammation, many of them can arise from no other cause; and that there is nothing in any of them inconsistent with that process in the economy; consequently nothing which should make us fearful of early and copious bleeding.

I am, Gentlemen,

Your's, &c.

JOSEPH ADAMS.

COLLEC-

COLLECTANEA MEDICA,

CONSISTING OF

ANECDOTES, FACTS, EXTRACTS, ILLUSTRATIONS,
 QUERIES, SUGGESTIONS, &c.

RELATING TO THE

History or the Art of Medicine, and the Auxiliary Sciences,

On Vomiting: being an Account of a Memoir of M. Magendie on Vomiting, read to the Imperial Institute of France on the 1st of March, 1813.

THIS memoir treats of a physiological truth which for a century and a half past has been alternately adopted and rejected, acknowledged and denied, established and forgotten, and which M. Magendie has at last founded on proofs so irrefragable that it is completely established, and must henceforth be considered as a point of doctrine beyond the reach of every objection.

How is vomiting performed, and what are the means employed by nature for that act, so apt to disturb the health, and in many cases so well adapted to re-establish it? Such is the question which occupied the indefatigable and ingenious author of the memoir of which we have to give an account. He has not considered it with reference to medical practice, convinced that in what way soever it is produced, its necessity, indications, and effects, must continue the same in cases of disease. He has treated it as a skilful physiologist and judicious experimenter; and if we cannot ascribe to him alone the idea and the entire solution, it is just to say that without him it would still have remained a problem undecided.

Nobody doubted till towards the middle of the 17th century that vomiting was produced by the simultaneous contraction of the muscular fibres of the stomach, supposed by anatomists to exist in that organ upon no very strong evidence. M. Magendie says, in his memoir, that Chirac appears to have been the first who entertained the contrary opinion, and who advanced that the diaphragm and abdominal muscles are the essential agents; but we have found that Bayle entertained the same opinion long before that physician, and that he confirmed it by experiments, which, if
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they were really made, must deprive Chirac of the priority, without injuring the proofs by which he confirmed his opinion. Senac informs us that Bayle, having caused a dog to swallow an emetic, made a deep incision opposite to the stomach, through which he introduced his finger while the animal was in the act of vomiting, and found by repeated trials that the stomach was not in motion. He found that the whole action was produced by the diaphragm and abdominal muscles, the most powerful of which, according to Senac, are the two transverse muscles, the only ones which have a semicircular direction, and which are capable of forming those hollows that appear in the belly in the act of vomiting. It is needless at present to discuss this subject.

The system of Bayle, or of Chirac, had its partisans; but it met likewise with opponents. These indeed could not but be numerous at a time when it was believed that the food was triturated in the human stomach in the same way as it is in the gizzards of birds.

On this occasion there occurred a pretty keen discussion between two members of the Academy of Sciences, Litre and Duverney; one of whom employed inaccurate reasoning, the other inconclusive experiments; and neither was able either to convince the followers of Chirac, or persuade his antagonists. Lieutaud and Haller, almost at the same time, put themselves at the head of the last party. They endeavored to prove that vomiting is exclusively performed by the stomach, and that it is independent of the diaphragm and abdominal muscles, which in their opinion only concur accidentally with the action of the stomach. Lieutaud observed that the action of the diaphragm and abdominal muscles being subject to the will, vomiting ought to be voluntary if it was occasioned by any such action; yet this is the case only in a small number of instances. Haller opposed the opinion of Chirac in order to strengthen his own system of *irritability*, under which he wished to arrange all the phenomena of animal organisation.

Wepfer took the same side, and he deceived himself still more than his predecessors; for he had recourse to experiments, and was misled by the results. He employed poisons by way of emetics, which excited in the stomach, sometimes in its place, sometimes out of the body, movements which he considered as muscular actions, though they were only the effect of that contraction which takes place in living substances when attacked by corrosives.

The high reputation of Haller, and the influence of his works, almost effaced the very recollection of the true notions
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of vomiting which had been occasionally perceived; and during fifty years it had been uniformly taught and believed that vomiting is produced by the stomach alone, till M. Magendie turned his attention to the subject, and resolved to subject it to experiments so rigid, and so often repeated, as to put the question beyond dispute, and render the conclusions classical, both in books and the schools.

We think proper to mention here that M. Richerand, an esteemed professor and author, convinced by facts exhibited before him, as well as before us, has introduced them into his treatise of Physiology, and has employed them to explain the notion of vomiting which he has embraced.

It is principally by the faithful account of these facts that M. Magendie so greatly interested the Class, already accustomed to esteem his talents and appreciate his discoveries. It is by recalling them to our colleagues that we hope to interest them in our turn.

We have not to notice simple conjectures, or slight and trifling attempts, from which systems have been too often built, and opinions formed respecting the most difficult points. Never, perhaps, were experiments more multiplied on the same object, or more scrupulously conducted, or with more exactness. They have been repeatedly made before us. We carried to them a considerable portion of doubt, perhaps even of incredulity, without, however, suspecting the well-known veracity of their author. We have seen, examined, handled, and we declare that our conviction is full and complete.

All the experiments which we witnessed were made upon dogs, because they are the animals most subject to vomiting. Tartar emetic was almost always employed to produce vomiting, not by way of injection or deglutition, but by introducing it into the jugular vein, as is done by the veterinary schools of Denmark. And it is worthy of remark, that tartar emetic, when swallowed by the animal, often does not occasion vomiting in half an hour; but when introduced directly into the circulation, it produces vomiting in one or two minutes. We have reason to be astonished at this constant and irresistible tendency of tartar emetic to produce vomiting, so that wheresoever it is applied it always produces this effect.

As Bayle, Chirac, and Duverney had announced, M. Magendie made us perceive by the touch that during the act of vomiting the stomach remains in a state of inactivity, and that it is the diaphragm and abdominal muscles which produce the evacuation of that organ. During this first experiment, repeated several times upon large dogs in the

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abdomen, of which an incision had been made large enough to admit two fingers, we perceived that at each strain of the animal our fingers were pressed upon from above by the liver pushed down by the diaphragm, and from below by the intestines which the abdominal muscles pressed, while the stomach, emptying itself without any sensible motion, did not appear to diminish in volume. This last singularity, already observed and announced to the Class by M. Magendie, is occasioned by the presence of air, which takes the place of the food as it is thrown out of the stomach, and which, being introduced through the œsophagus during the long inspirations which precede vomiting, keeps the stomach always sufficiently distended not to escape the compressing action of the surrounding parts.

We know that it is easy to swallow air. Some people amuse themselves by swallowing it, and thus swell out their stomach till it resounds like a drum when struck. There can be no doubt that a great deal of air is swallowed during vomiting, without which vomiting would be exceedingly painful, as happens in cases of poison by corrosive substances, when the stomach is contracted, and no longer capable of admitting that fluid. M. Magendie intends soon to read a memoir on this subject to the Class, and we ought not to anticipate what has become his legitimate property. We shall observe the same silence with respect to the conspicuous part which the œsophagus takes in the act of vomiting, because M. Magendie is drawing up a memoir on the subject.

In a second experiment, made upon the same dogs which had served for the preceding, the incision of the belly being increased, and the stomach drawn out of the body, it was still easier for us to be convinced of its want of motion, and to perceive the inaccuracy of what Haller had advanced respecting its peristaltic movement. In this state the stomach, filled with air which had been drawn in some moments before the act of vomiting, was distended like a balloon; but no farther vomiting took place, nothing but ineffectual nausea, because the stomach being out of its place could no longer be acted upon by the surrounding organs.

M. Magendie announced in his memoir that by pressing upon the stomach thus removed out of the body with the two hands, so as to imitate in some measure the action of the diaphragm and abdominal muscles, vomiting was always produced. And this constitutes one of the most conclusive arguments in favor of the opinion which he embraced; but though the dog subjected to this experiment vomited without having taken any emetic, and exhibited the nausea, and other

other symptoms which characterise vomiting, the column of air did not enter and take the place of the ejected food. This shows us that other conditions besides the mere pressure of the stomach are necessary to produce vomiting. This experiment revealed to M. Magendie the principal of these conditions. When he held the stomach in his hands without compressing it, he perceived that when he drew it too far out of the belly he immediately produced nausea and vomiting. He conceived that it was the stretching of the œsophagus which produced this double effect; and he took advantage of this discovery to make dogs vomit at pleasure which had taken no emetic, or to hasten vomiting when the emetic did not act with sufficient promptness. It was only necessary in either case to agitate the stomach, and draw the œsophagus a little, to produce immediate vomiting. It is easy to perceive here the effect of those profound inspirations which, as well as nausea, precede vomiting, and by means of which, the diaphragm embracing the œsophagus between its pillars, draws it along with it towards the intestines, and makes it undergo those tractions which M. Magendie has so happily imitated. This explains why in the palsy of the œsophagus there is no vomiting, and why it is so difficult to produce it after cutting the pneumogastric nerves.

If we examine a person just going to vomit, if he does not succeed after a strong inspiration, we see him repeat it again and again, and multiply the movements of expiration, which are always more irregular. By this means the diaphragm agitated up and down gives to the œsophagus that agitation without which, in all probability, vomiting would not be produced.

It is well known that vomiting often takes place without all those efforts. This is an objection which may be started against either opinion. But, besides that we do not speak of those individuals, who, from the frequent practice of vomiting, have acquired the habit of it, we must distinguish, in infants at the breast, for example, the regurgitation of vomiting; and, in persons who ruminate, the voluntary and tranquil act of bringing from the stomach to the mouth the food to be swallowed a second time, from the painful and involuntary act of vomiting. Besides, in persons who ruminate, as has lately been observed by one of your commissioners in a young man of 24 years of age, the return of the food to the mouth is preceded by a kind of noise, sometimes pretty loud, which announces the instantaneous agitation of the œsophagus, produced by the diaphragm, and the no less prompt action of the œsophagus upon the stomach.

This agitation of the œsophagus is not confined to the alimentary canal, properly speaking; the branches of the par vagum, and of the great intercostals which cross around it, must participate in this movement.

We observed above, that as long as the stomach of dogs laboring under an emetic was out of the body, no vomiting took place, but only nausea; but when the stomach was restored to its place, vomiting immediately followed. The next point to be determined was, if the action of the abdominal muscles be absolutely necessary to produce vomiting, as was the opinion of Chirac and his adherents. These muscles were removed from a robust dog, and an emetic being injected, he vomited apparently with as much facility as if that operation had not been performed, which reduced the covering of the abdomen to the peritoneum, and to a few transverse muscular fibres which it was impossible to remove. M. Magendie made us remark in this case the great tension of the linea alba, during the nausea and vomiting; and we conceive that this species of cord stretched along the abdomen may be sufficient to keep the intestines in their places, and to prevent them from escaping from the energetic action of the diaphragm, which in some of the experiments even tore the peritoneum in several places.

One of us had made an analogous observation, but without drawing the same consequence, upon a soldier, the muscles of whose abdomen had been removed or destroyed by the action of a large cannon-ball; so that after his cure the stomach in all its positions might be seen through the transparent peritoneum. This soldier, during his cure, was frequently troubled with vomiting, to which the abdominal muscles could not contribute, as they were wanting altogether; yet he vomited with as little difficulty as before his wound.

The experiment above related, which was first thought of by M. Magendie, proves that it is the diaphragm which acts with the greatest efficacy in vomiting, and that the abdominal muscles serve scarcely any other purpose than to confine the viscera floating in the abdomen, and to oblige them to re-act in a contrary direction. But when the action of the diaphragm is carried too far, and when the inspirations are too profound and too long, then instead of vomiting we have alvine evacuations, doubtless because the œsophagus is too much pressed upon by the diaphragm to give free passage to the substances which endeavor to escape from the stomach.

When, on the contrary, the diaphragm can only act feebly, and solely for the maintenance of respiration, as happens when the phrenic nerves are cut, then how strong soever an emetic

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is administered, nothing more takes place than successive nauseas, and very seldom vomiting, notwithstanding the most violent contractions of the abdominal muscles.

One of the commissioners having invited M. Magendie to cut the phrenic nerves on both sides of a dog still vigorous, whose abdominal muscles had been removed, and to make him swallow a gros (72 grains) of red oxide of mercury, the animal was very much agitated, and had nauseas, retchings, and painful alvine evacuations, but did not vomit. M. Magendie intends speedily to state the observations which he made on this occasion.

Most of these experiments prove sufficiently that the stomach is entirely passive in the act of vomiting, and that the principal effect is produced by the diaphragm. Those that follow go still farther, since they demonstrate that vomiting may take place without the stomach. They were repeated three times in our presence with the same result.

M. Magendie having cautiously (in order to avoid hemorrhages) made a ligature on each of the orifices of the stomach, removed that viscus altogether, and, after having sewed up the wound in the belly, administered an emetic. In less than two minutes the dog exhibited all the symptoms which precede vomiting. We may even say that he actually vomited, for he threw out with effort and violent nausea the mucus of the œsophagus. Thus it appears that vomiting may in some measure take place without the stomach. It appears, then, that as far as vomiting is concerned the stomach is nothing but an inert bag, containing matters destined to be thrown out. And what other part in vomiting is it possible to ascribe to those schirrous stomachs whose coats have acquired some inches of thickness, and a hardness approaching to that of cartilage?

We have only another experiment to notice, and it is the most extraordinary and the most decisive of all those which we have seen.

In the place of the stomach, which had been cut out of several dogs, M. Magendie substituted a small hog's bladder, almost of equal capacity, to the neck of which a canula of caoutchouc had been adapted, which was thrust into the œsophagus below the diaphragm, and kept in its place by a thread. These dogs were made to swallow water tinged yellow, with which the bladder was filled according as deglutition took place. The opening of the belly having been sewed up, an emetic was introduced into the jugulars. Nausea took place in a short time, and the animals vomited the yellow water precisely as if it had come from a real and living stomach. The wound in the belly being laid open,
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we easily observed at each strain the air descending in a current into the bladder, and distending it as if it had been a real stomach, which is not the least curious circumstance attending this experiment.

It only remains for us to submit to the Class some reflections which M. Magendie did not think it necessary to add to his memoir, though he did not fail to make them as well as ourselves, on the question whose destiny he has thus finally fixed.

These experiments prove not only that the stomach is passive in vomiting, they lead us to a more important result, which throws new light upon the nervous energy, that wonderful energy which constitutes the whole of our being, the mysteries of which it is so much our interest to penetrate. We may deduce from the result of these experiments that the principle, the prime mover of all those movements which produce vomiting, has its source in the seat of the nervous energy itself; for we cannot otherwise explain how an emetic, which produces no action on the stomach, determines the contraction of the diaphragm and abdominal muscles. We cannot have recourse here to those sympathies which have been so much abused in physiology, by advancing that the contraction of the stomach draws along with it by sympathy that of the muscles just mentioned. It is obvious that an emetic can only produce its effect by re-acting from the stomach upon that place of the seat of the nervous energy, where the principle of the contraction of the diaphragm and abdominal muscles resides. It is the affection of that part which is the immediate cause of vomiting. If the nerves, by which the diaphragm and the abdominal muscles receive the impression of it, were cut, the patient would have the same desire to vomit, and would have the sensation of vomiting without vomiting in reality. This is proved by the suspension of vomiting in M. Magendie's experiments on cutting the phrenic nerves. On the other hand, though these nerves, and all the rest of the body, remained untouched, if that portion of the seat of the nervous energy were disorganised, no emetic could give the animal either a desire to vomit, or produce in him the sensation of vomiting.

We have here a particular and very remarkable application of that general truth demonstrated by M. le Gallois, namely, that the seat of the nervous energy (the brain and spinal marrow) is the sole source of all the motions which take place in a living animal, and that no part can move without a particular and anterior modification of that part of the nervous energy by which it is animated. The obstinate vomiting which in many cases accompanies apoplexy, and
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which had been ascribed to indigestion, had been already pointed out by M. le Gallois as a phenomenon entirely unconnected with every affection of the stomach, and totally depending upon that of the brain.

It remains to be known how an emetic introduced into the stomach can affect the seat of the nervous energy in a manner so as specifically to produce vomiting. Is it by irritating the nerves of the stomach? or is it absorbed, introduced into the blood, and transported by the circulation? Perhaps both of these modes of transmission take place, according to circumstances. The vomiting which we observe sometimes after cutting the nerves of the eighth pair, and which appears to be occasioned by the irritation which the superior segment of these nerves experiences, seems to favor the first mode of action; while the experiments of M. Magendie producing vomiting even in animals deprived of their stomach, by injecting an emetic into the blood-vessels, seems equally favorable to the second mode. His preceding experiments on the effect of upas, experiments made in concert with M. Delille, strengthen this last opinion. They prove that upas occasions those dreadful convulsions which so speedily destroy life, only when it is absorbed into the mass of the blood, and transported directly to the spinal marrow. It is very probable that almost all substances that have some effect on the animal economy act in this manner. This opinion leads us to views entirely new respecting the mode of action of most medicines and poisons.

Another question remaining to be answered, is to know the precise part of the brain or spinal marrow on which the efforts of vomiting depend. M. le Gallois has proved that the principle of the movement of inspiration is seated in that portion of the medulla oblongata which gives origin to the eighth pair of nerves. If we consider that the efforts of vomiting are executed by the muscles of respiration, that the nerves of the eighth pair supply the stomach as well as lungs, and that the disorder of the medulla oblongata in apoplexy occasions vomiting, it will be rendered pretty probable that the efforts of vomiting are situated not far from those of respiration, if they have not the very same position. But it would be of importance to determine the point by direct experiments. Now that the general seat of the nervous energy is well determined, and clearly defined, one of the greatest objects of physiology is to know precisely the function peculiar to the different portions of that seat. Such objects deserve the attention of such accurate experimenters as MM. le Gallois and Magendie; and those experiments, which they have already made so successfully, induce us to hope that they will

will advance still farther in a career in which they know by experience that they are likely to meet with honor, glory, and reputation.

To conclude, we think, 1. That M. Magendie, to whom the Class has already given with so much pleasure proofs of its esteem and satisfaction for the experiments previously communicated, deserves new ones for those which he has just presented.

2. That his memoir on vomiting, destined to be ever after cited in physiological works, is worthy in the first place of being mentioned in the history of the labors of the Class, and of an honorable place in its memoirs.

3. That M. Magendie ought to be invited by the President to give to his experiments the farther developements of which they are susceptible; and to demand, if he thinks proper, a reimbursement of the expenses which he may have incurred, or may still incur, in the further prosecution of the subject; for we expect that he will examine with particular attention the phenomena of vomiting in birds, and other animals destitute of a diaphragm.

(Signed)

CUVIER,
PINEL,
HUMBOLDT,
PERCY, *Reporter.*

The Class approves of this Report, and adopts its conclusions.

Certified conformable to the original.

The Perpetual Secretary, Knight of the Empire,

G. CUVIER.

Vaccination in India.

The English have introduced the blessings of vaccination among all descriptions of people in Hindoostan; by which means the lives of thousands and tens of thousands are annually preserved. In this humane undertaking the Brahmins have risen superior to prejudice; and under their extensive and powerful influence, all other casts of Hindoos have adopted the practice. Many letters on this subject from eminent Brahmins to medical gentlemen in India do them honor; they contain the most liberal sentiments, and have been followed by a corresponding practice. *Mooperal Streenivaschary*, a Brahmin, thus writes to Dr. Anderson, at Madras, on vaccine inoculation:—

“I beg leave to observe, for the information of the natives of this country, that I have perused the papers which you have published on that wonderful, healthful, and immortal vaccine matter, discovered on the nipples and udders of
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some cows in England, by that illustrious physician, Dr. Jenner; whereby the loathsome, painful, and fatal small-pox has been prevented from seizing the many of our fellow-creatures in India, as well as in Europe.

"I am an eye-witness, as well as many others, that numbers of children here have been inoculated with vaccine matter, without any injury or blemish whatsoever, excepting a small spot at the place where the matter is applied, which is commonly in the arm. It is therefore greatly to be wished that an intimate knowledge of this wonderful discovery may be acquired by the natives of this country, so as to enable them to preserve the lives of the rich and honorable, as well as those of low casts. On this account, it might be useful to remove a prejudice in the minds of the people, arising from the term cow-pock, being literally translated *comary*, in the advertisement which has been published in our Tamil tongue; whereas there can be no doubt that it is a drop of nectar from the exuberant udders of the cows in England, and no way similar to the humor discharged from the tongue and feet of diseased cattle in this country.

(Signed) MOOPERAL STREENIVASACHARY."

As vaccination is now so generally adopted in Hindoostan, and likely to become a universal blessing in that populous part of the globe, it may be satisfactory to mention the following singular fact, respecting the antiquity of vaccination in India, taken from the Asiatic Register for 1804; which is altogether a curious and authentic addition to a subject so interesting to humanity.

"The fact stated in the following translation of a written memorandum from the Nabob Mirza Mehady Ali Khan, who was long resident at Benares, that the effects of vaccination have been known for a great length of time in that celebrated quarter of India, is referred to the investigation of those who have the opportunity and ability, since they cannot want the inclination, to prosecute so interesting an inquiry. The undoubted intimation of this fact, that vaccination has been practised among the worshippers of Bowannee, will not detract an iota from the merits of the Jennerian discovery; the fortuitous and happy circumstance that led to the discovery in Europe, has been unquestionably and most satisfactorily proved, whilst the anxiety, study, perseverance, and indefatigable exertions, which have been applied by its benevolent professor to ensure the conviction of the world, in the unbounded benefits of the discovery, have entitled him to the lasting gratitude of mankind. The full ascertainment of the fact will only go to afford an additional instance of primeval oriental knowledge; whether acquired or accidental, is to be

hereafter proved: it will only open an additional neglected mine for the curious and the learned; and will be another proof that the East has been the seat of wisdom, 'where learning flourished, and the arts were prized;' however much the neglect with which this knowledge has been treated in this country, may reflect upon the modern degeneracy, or the prejudices of the Indian character; which may, however, be all accounted for, from the effects of the various revolutions, to which their country has, for so many ages, been a prey; leaving thence room to the liberal construction of the unbiassed of every nation to conclude, that before the introduction of a foreign sway into Hindoostan and the Deccan, its Hindoo inhabitants were versed in the arts and sciences, far beyond the other parts of the world, at the same remote period of time.

" Translation of a written memorandum from the Nabob Mirza Mehady Ali Khan.

" During the period of my abode in the district of Benares, my eldest son being taken ill of a bad kind of the small-pox, and my friends interesting themselves for my comfort and his relief, one of them, named Slookum Chund, a Hindoo, pointed out to me that there was in the city of Benares, one Alep Choby, a Brahmin, from Oude, whose practice was chiefly confined to this malady. Him, therefore, I lost no time in sending for to the town of Ghazeepoor, where I dwelt; and he arrived on the ninth day of the eruption; on seeing which, he observed that if the eruption had not taken place, he would have endeavored to facilitate and render it easy; but that now it was too late. On asking Choby what his process was, he said, ' From the matter of the pustule on the cow, I keep a thread drenched, which enables me, at pleasure, to cause an easy eruption on any child; adoring, at the same time, Bowannee, (who is otherwise called Debee, Mata, and Seebla, and who has the direction of this malady,) as well in my own person, as by causing the father of the child to perform the like ceremonies; after which I run the drenched string into a needle, and drawing it through between the skin and the flesh of the child's upper arm, leave it there, performing the same operation in both arms; which always ensures an easy eruption; on the first appearance of which the child's father, or guardian, renews his worship to Bowannee; and as the animal this goddess rides on is an ass, it is customary for such parent or guardian to fill his lap with grain, which an ass is sent to eat up; these observances ensure the propitious direction of Bowannee, so that only a very few pustules make their appearance; nor does any one die under this process.'—Thus far did I learn from Alep Choby.

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“ Upon referring on this subject to a native well versed in the learning and customs of the Hindoos, he told me that the practice thus described by Choby was not general among them, but confined to those who were attached to the worship of Bowannee, and adored her with implicit faith: and upon my asking the person whether he was aware how the matter of the pustule got from the cow, and whether all cows had such pustules, or only those of a certain description; he answered, that on these points he possessed no information; but had certainly understood that the cows had these pustules break out on them, and that from the matter thereof children were infected; acknowledging, however, that he spoke not this much from ocular knowledge, but from report.”

Mr. John Underwood, senior, who resided many years at Madras in a medical capacity, frequently corresponded with SURFOJEE, *Rajah of Tanjore*, a most amiable benevolent character, and particularly fond of studying anatomy. Mr. Underwood sent the rajah a body, where the heart and every artery and vein were carefully injected with colored wax: this preparation would give him a correct idea of the course of circulation, and the insertion of several muscles. The rajah was much gratified by a present which enabled him to pursue his studies with increased delight, and rendered him more useful in his sovereignty. The following letter, in acknowledgment of this valuable present, was written by the rajah to Mr. Underwood, which, in a Hindoo prince, indicates a mind unusually liberal and enlightened, sufficient to encourage a lively hope towards the advancement of literature, art, and science, extending ultimately, perhaps, to establish Christianity in that part of Hindoostan where there are already several protestant churches. For Surfojee, Rajah of Tanjore, was the friend and patron of Swartz, for near half a century the apostolical missionary of Coromandel, whose prudent zeal truly blended the wisdom of the serpent with the innocence of the dove. The Hindoo sovereign shed tears at the death of his venerable Christian friend, and covered his remains with a splendid pall of gold brocade. On the establishment of the Native Hospital at Madras, in 1799, under the immediate care of Mr. Underwood, senior, this benevolent sovereign sent two thousand pagodas, about eight hundred pounds sterling, to assist the institution.

Letter from Surfojee, Rajah of Tanjore, to John Underwood, Esq. at Fort St. George.

I received your letter some time ago: the contents of it have yielded me inexpressible pleasure. The box and the

book alluded to in the letter, have likewise been safely received.

The human body, of which the origin appears to have been wrought by the Supreme Being himself, the frame of which is supposed to have afforded satisfaction even to its maker, has been the chief object of my long imitation and inquiry. The books with which I have been conversant, have spread before me but a faint light on this topic: hence I need not say that the preparation which you have sent to me, has afforded me the greatest pleasure; especially as I have long been desirous to see one of this kind, the receiving it so unexpectedly from you, has redoubled my satisfaction. Upon examining every part of it, I found the muscles to be well preserved; and it is worthy of the inspection of every lover of philosophy.

The book of anatomy which you have been so obliging as to send me, is also well calculated for the students to profit by. I request you will accept of my thousand thanks for the trouble you have taken in forwarding me the above things, which are very useful and pleasing to

Tanjore, July 5, 1806.

SURFOJEE, Rajah.

Not being myself sufficiently competent to elucidate the subject of medicine, as practised by the natives of India, I requested Mr. Underwood to give me some account of the general mode of treatment in that part of the world; in consequence of which he favored me with the following statement, which I introduce with great satisfaction, from its filling up a desideratum I could not have supplied from my own knowledge.

“It appears to Europeans that the natives of India are extremely ignorant in the practice of physic: they have many remedies, chiefly roots and herbs, which are generally given in the form of powders. The practitioners are poor men of a particular cast, who sit by the side of the high roads and market paths, with small boxes, containing various kinds of powder, which is administered with particular instructions, and a promise of cure in a specific number of days. In all complaints they enforce abstinence, seldom allowing the patient any other nourishment than their conjee, or rice gruel. In certain diseases they give cinnabar, occasionally with success; but the improper use of it frequently causes ulcerations to spread to a very great extent.

“The natives are extremely bigoted to their own remedies, which, without improvements or alteration, are handed down from father to son through succeeding generations. They, therefore, seldom apply for the assistance of Europeans until the

the case appears hopeless from their own prescriptions. They do not bleed, nor perform any surgical operation, unless the removal of a part partially divided. All cases of fractures and dislocations are consigned to the potters, a cast of people abounding in Hindoostan, for making the water-jars and cooking utensils, of red clay, so universally used. The potter places the limb of his patient in what he considers the best situation, and then covers the part affected with moist clay: this, when dry, fixes the limb; and under such treatment simple and compound fractures often do well, but, as may be expected from this process, distortions and stiff joints are more frequently the consequence.

“For spasmodic affections, the natives of India generally apply the juice of the milk-bush (*Euphorbia*, Linn.) to the parts affected, which acts like a blister: in more serious cases they use the actual cautery. From this cause it is common to see horses, oxen, laboring men, especially palankeen bearers and porters of heavy burthens, marked in many places by a hot iron. Notwithstanding the liberal mind and singular propensity of the Tanjore sovereign, already mentioned, it cannot be expected that these medical practitioners should in general acquire any accurate knowledge of anatomy, and the heat of the climate operates powerfully against their possessing any extensive information from dissection: much, however, may be acquired from preparations.

“Although I have no high opinion of the general mode of practice among the natives, yet in a few instances I should give a preference to their remedies, particularly in the ophthalmia or sore-eye of India: the inflammation frequently runs so high that the sight is destroyed, unless by some active means, the affection, so deeply rooted, can be removed. This, I think, is best done by an early application of what is called at Madras the ‘country remedy,’ which is a thin paste, made by burning a little alum on a hot iron, and mixing it with lime-juice, by a spatula, into a paste. This is applied over both eye-lids, to the extent of the circle of the orbit, at going to rest, and washed off in the morning with a decoction of tamarind leaves. This I consider the best and most certain remedy for a disease that so repeatedly causes blindness. A surprising number of the natives are entirely blind, especially among the poor.

“I have often seen a Mahomedan practitioner perform the operation of removing a cataract. He made a small puncture with the point of a lancet, immediately behind the iris, into which he introduced a particular instrument, so guided as to depress the cataract. This operation I prefer
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to any other mode yet practised, as it occasions less injury to the eye."

The preceding appears to be a clear and brief statement of medical and surgical practice among the natives of Coromandel, and I believe the same system is generally, or nearly, adopted throughout Hindoostan. When with the Mahratta army during Ragobah's campaign in Guzerat, I had frequent opportunities of knowing the high estimation in which the English physicians were held both by Hindoos and Mahomedans, when they thought themselves seriously ill, or wished to procure their advice even for their females, whom, indeed, they were not often permitted to see, but formed their judgment of the disorder by feeling the patient's pulse with the arm admitted through a perforated curtain. It certainly would be no easy matter to persuade a Brahmin to mingle Peruvian bark, or any other medicine, with wine or distilled spirits; but to take the drug in simple water, or compounded with any ingredients he was accustomed to, would not be attended with difficulty. As to the other casts in general, provided they are persuaded the prescription is to effect a cure, or prove a stimulus, they waive the ceremony of being very particular in their inquiries.—*Forbes's Oriental Memoirs.*

Goderneau's Powder.

This powder is a nostrum used at Paris, and reprobated by the regular physicians as too drastic for the human frame. Dr. Marcet examined and found it to be a preparation of mercury. Each parcel given as a dose contains xij grains French. The color is not so white as that of calomel. Examined with a lens, small globules of metallic mercury are discernible, and also some reddish particles, which are red precipitate. It is wholly volatile at a low heat like calomel, but volatilization separates it in a manner which proves it not to be homogeneous, for the vial in which it is sublimed is marked with three distinct zones, white, red, and grey. Water does not dissolve any sensible portion of this powder. Nitric acid dissolves the whole of it, and nitrate of silver poured into the solution, lets fall a quantity of muriate of silver corresponding to about nine grains of calomel. The remaining three seem composed of about one and a half metallic mercury, and one and a half red precipitate. By triturating the above substances in the above quantities, a compound very like Goderneau's Powder was produced, but rather more uniform in its appearance. This is a very rude preparation of mercury, and its use should not be encouraged. Its effect is to produce a very disagreeable sensation in the
stomach,

stomach, and afterward to increase the appetite. It also purges, and sometimes vomits. The Chevalier Goderneau was a military man, and a knight of St. Louis, but no chemist; and since the revolution has swept him from the earth, the care of preparing this powder has devolved upon his sister, an old maiden lady, who from time to time swallows large doses of it for a sore foot, which has the advantage of always being about to heal.

Establishment for Warm Baths and Douches at Paris.

The establishment of artificial mineral waters at Paris, is very extensive and useful. All the known mineral springs in Europe are there prepared according to the best analysis of modern chemistry; and in sufficient quantity for drinking, bathing, or douches. The climate of Paris is colder in winter, and warmer in summer, but it is much less damp than that of London: and during five months of the year a continuance of fine weather is much more to be depended upon. Almost every evening, from the beginning of May to the middle of September, all the public walks which abound in and near that city are crowded with persons, who, very lightly clad, remain walking or sitting in the open air, till eleven or twelve o'clock at night; a system of life which no inhabitant of England could follow eight days consecutively without suffering by it. Warm bathing is therefore (why?) not of such general use or benefit in England as in France. There are few places where nature has done so much in favor of warm bathers as at Bath; and art has done almost every thing except taking advantage of those very waters which have caused the prosperity of all the rest. The baths, however, have been considerably improved of late years, but still there does not exist at Bath so efficient a DOUCHE as those of the artificial establishment at Paris. The strongest douche at Bath falls from a perpendicular height of fourteen feet. The highest douche at Paris falls from 32 French feet, a height which is wholly arbitrary as to medical effect, and is merely founded on this physical fact, that the weight of a column of water 32 feet high, is equal to the pressure of the entire atmosphere upon a basis equal to that of this column of water. But as the force of falling water increases in the ratio of the square of the perpendicular height of the pipe through which it falls, the douche at Bath has not one-fourth part of the force of that in Paris, and the difference of their effect is very great. A small expence might rectify this deficiency at Bath, and establish douches of any height; and which in their application might be proportioned to the sensibility of the patient,

CRITICAL

CRITICAL ANALYSIS

OF RECENT PUBLICATIONS

IN THE

DIFFERENT BRANCHES OF PHYSIC, SURGERY, AND
MEDICAL PHILOSOPHY.

Practical Observations on the Use and Abuse of cold and warm Sea-bathing in various Diseases, particularly in Scrofulous and Gouty Cases. By JOHN GIBNEY, M.D. Resident Physician at Brighton. 8vo. pp. 144. Underwood. 1813.

HACKNEYED as the subject of this treatise is, the author has contrived to render it interesting. He has brought together numerous authorities, and adduced some original remarks from his own experience. If well-informed medical men will not derive much instruction from the volume, we think they will find nothing in it to which they can object; whilst young practitioners, and those not much in the habit of thinking for themselves, will undoubtedly meet with new and instructive matter. Invalids, also, will do well to read the book; for they will find that sea-bathing, improperly pursued, is as capable of doing mischief, as under skilful regulation it may be productive of decided benefit. It unquestionably is an important agent, and, in many cases, requires nice discrimination, both in the mode and time of its application. The temperature of the bath, in all cases, should be determined by the physician.

Dr. Gibney's cautions respecting the use of the cold bath in advanced age and in infancy, are very judicious. Few, he observes, in the evening of life, are benefited by it; and many young delicate children suffer from its use, although it has been absurdly considered as strengthening and invigorating the system. The intermediate age is stated to be most favorable for cold bathing.

The following is an instructive case:

"In November last, a person of extensive commercial connections, aged 68, became extremely irritable and unhappy, in consequence of pecuniary losses; he passed sleepless nights, and his appetite forsook him. On coming to Brighton, he imprudently entered into a warm bath of 100°, while his intestines were constipated, his pulse high and quick, and his heat at night very considerable. The consequence was, he became feverish, his head affected with a fixed pain, and all his uncomfortable feelings considerably increased. He was about to abandon the warm bath in despair; but on using purgative medicines, taking his bath at 92° in the forenoon, avoiding wine and cordial medicines,

medicines, of which he had used great quantities, his general health was soon reinstated. His error consisted in the abuse of a useful, and to him salutary remedy; having employed it at an improper time, and of a temperature unsuitable to the nature and state of his disease."

Dr. Gibney notices the trifling manner in which the warm bath is too generally used in this country; many persons going into it only once or twice a-week, and remaining immersed a very short time.

"In Switzerland, the time of remaining in the warm bath is from six to twelve hours. At Pfeffers, one half of the body is exposed for many hours in succession to warm vapor, while the other half is immersed in the bath. At Landeck, in Silesia, the practice of continuing in the warm baths, in all cases of debility, for hours at a time, is also very general, and attended with the happiest effects."

From these and similar facts, the author demonstrates the absurdity of the opinion which pronounces all warm baths to be relaxing. Great misapprehension on this subject has long possessed the vulgar mind in this country, probably from the people not being familiar with the extensive use and pleasant effects of baths as practised in most countries of Europe and the East. Indeed, it is much to be lamented, that in the neighbourhood of most large towns in England, bathing of all sorts is extremely discouraged; for, though it is always desirable to have recourse to sea-bathing, this luxury can only be enjoyed by a very small portion of society, and river-bathing is better than none. If the people were duly impressed with the value of even fresh-water immersion, both warm and cold, the means of obtaining it would not long be wanting. There is no pleasure, and but little advantage, in resorting to the close ill-ventilated baths of the metropolis; we want something upon a larger scale, and a more liberal principle. Is the Thames smaller, or more inaccessible, than the Seine, that we cannot have our swimming schools? Is the science of hydraulics less understood now than in the age of Nero, that we cannot enjoy our *Thermæ Marinæ* in the heart of London?

Dr. Gibney has collected many facts to prove that heat is not relaxing, as is too generally imagined. Duly modified, it "gives renovated vigor to animal and vegetable existence, and only produces relaxation when immoderately applied." This is most strongly exemplified in those warm climates where it is not excessive; there, the inhabitants are accustomed to remain long in the warm bath, which, as they express it, "feeds and nourishes their blood." Were it relaxing, the relief it is known to afford in cases of the utmost

debility, attended with colliquative sweats, would not necessarily follow. In the Levant, and in Italy, no disease of relaxation is thought to be effectually removed, without the warm bath; and in every species of intermittent, where affection of the liver, &c. often accompany the disease, its successful application is remarkable. In Spain, a kind of vapor bath, of a very efficacious and penetrating nature, is formed from the pulp of olives, the *Horeijo de Areitunas*, after the oil is expressed, by suffering a gradual fermentation to take place; when by this process the necessary heat is generated, the patient is confined under the heap, a due attention being paid to the position, so as that respiration may be free; and by remaining for one, two, or three hours, and repeating the bath at regular periods for many days in succession, several diseases arising from debility are most effectually removed.

“In this country (Dr. Gibney observes) I have known brewers grains, while possessing the proper degree of heat, serve purposes very similar; as in debility of the spine, and in some stages of that dreadful strumous disease which so often affects the hip-joint: in cases like these, heat, whether applied in the form of vapor or otherwise, gives vigorous tone to the action of the skin, that important emunctory, on whose healthy condition our nervous energy, the digestive powers, the secretory functions of our vital organs, and the regular circulation of our blood, depend in so considerable a degree; and which, when at all discomposed, is restored to order by the warm bath, much more certainly and effectually than by any other means with which we are acquainted. In cases of suspended animation from drowning, inhaling noxious air, or from any other cause, the revivifying power of heat is well known; but except the application of it, in these and other cases, be continued for a considerable length of time, it will often fail to produce the effects expected.”

The proper time for entering the warm bath has not always been sufficiently observed. Dr. Gibney's remarks on this subject merit attention. The work concludes with a brief account of those diseases in which the bath is applicable; and on the whole we consider it a very creditable performance. We commend it too the more cheerfully, because the author has not spoken of the remedy more highly than it deserves, and has not augmented the size of the volume by inserting long and tedious cases.

The Influence of Tropical Climates, more especially the Climate of India, on European Constitutions; the principal Effects and Diseases thereby induced; their Prevention or Removal; and the Means of preserving Health in Hot Climates, rendered obvious to Europeans of every Capacity.
An

An Essay, by JAMES JOHNSON, Esq. Surgeon in the Royal Navy. 1 vol. 8vo. pp. 536. London. Stockdale, Pall Mall. 1813.

EVERY publication which results from personal observation in tropical climates, and which points out the dangers or mitigates the diseases to which our countrymen are exposed in those regions, demands our attention, and has a just claim to our earliest notice.

The work before us is ushered into the world under the auspices of Dr. Harness and Dr. Curry, to the former of whom it is addressed, by permission, in a manly and independent dedication. The preface informs us that "it has not been committed to the press till after fifteen years of observation and experience in a vast variety of climates, and with some *unusual sources of information* on the subject which it more particularly embraces." Mr. Johnson here intimates, what indeed the whole of the work amply confirms, that he disdains to copy his predecessors in this walk, from whom he dissents without ceremony, on numerous occasions, "determined (he says) never to succumb to any doctrines or opinions, whatever might be their authority, whenever they clashed with the evidences of his own senses." To this we do not object, and have only to say, *O si sic omnia!* Mr. J. here also makes a remark which has often suggested itself to us, namely, how singular it is "that notwithstanding the extensive medical establishments of the India Company in the East, and the known ability which very generally characterises their officers there, we have scarcely any detached account of the climate and diseases of that vast empire, while volumes after volumes have issued from the press on the climate and diseases of the West India Islands." Preface, page 11. "Where, for instance, (says he) are we to look for any MODERN account of the endemic of Batavia, a settlement over which the British flag now waves, and whose very *name* is associated in the European mind with sickness and death! As for hepatitis, it is scarcely noticed by tropical writers, and we are forced to learn its nature and cure from a London physician who never set foot between the tropics." Ibid.

Mr. Johnson divides his work into three parts, each of which is subdivided into sections. Part 1,—Primary or general effects of a tropical climate on European constitutions, within the range of health. This contains four sections—on perspiration, sympathy, biliary secretion, and lichen tro-
picus.

The 2d part, on "Specific Diseases," is branched into
g g 2
eight

eight sections on the following subjects. 1st. Endemic of Bengal, or marsh remittent fever. 2d. Bilious fever. 3d. Contagious fever. 4th. Endemic of Batavia. 5th. Endemic of the West Indies, or yellow fever. 6th. Hepatitis. 7th. Dysentery. 8th. Cholera morbus and Mort de Chien.

The 3d part, entitled "Prophylaxis, or Tropical Hygiene," contains eight sections also. 1st. On dress. 2d. On food. 3d. On drink. 4th. On exercise. 5th. On bathing. 6th. On sleep. 7th. On the passions. 8th. On naval hygiene and discipline.

In noticing the volume before us, we must confine our observations to a very few of the various subjects that occupy a closely printed octavo of more than 500 pages, referring to the work itself, which will probably obtain an extensive circulation.

In the 3d section of part 1, Mr. Johnson introduces a new principle, which lets in some light on tropical diseases, and is denominated by him the "*Cutaneo-hepatic sympathy*." The *modus operandi* of heat, as a spur on the secretory vessels of the liver, has never been satisfactorily accounted for, and we think Mr. Johnson's elucidation will be considered as ingenious, and leading to practical advantages of considerable importance.

The arguments in support of his doctrine come in under hepatitis, dysentery, and other heads of the work. In this place he merely states the principle itself.

"There exists then between the extreme vessels of the vena portarum in the liver, and the extreme vessels on the surface of the body,—in other words, between *biliary secretion and perspiration*,—one of the strongest sympathies in the human frame, although entirely unnoticed hitherto, as far as I am acquainted. That these two functions are regularly, and, to appearance, equally increased, or at least influenced, by one particular agent (atmospheric heat) from the cradle to the grave, from the pole to the equator, will be readily granted by every observer; and that this *synchronous action* alone, independent of any other original connection, should soon grow up into a powerful sympathy, manifesting itself when either of these functions come under the influence of *other agents*, is a legitimate conclusion in theory, and what I hope to prove by a fair appeal to facts. But here I only offer assertions: in a future part of the work I shall bring forward facts and cogent arguments in proof of them. At present let this 'consent of parts' between the skin and liver, which I shall beg leave to denominate the *cutaneo-hepatic sympathy*, account for the augmented secretion of bile which we observe on arriving in hot climates, corresponding to the increased cuticular discharge." P. 20.

We shall have occasion to notice this sympathy hereafter.

The first section of part 2, on the Endemic of Bengal, opens

opens with an animated sketch of the medical topography of that celebrated province, more especially the course of the Hoogly between Calcutta and Kedgeree, where Mr. J. informs us, on the authority of Captain Williamson, that full 300 European sailors annually fall victims to the marsh remittent fever! The fidelity of Dr. Clark's *description* of this endemic is contrasted with the inadequacy of that gentleman's *treatment*; and Mr. J. forcibly portrays the fatal consequences which must have resulted from the dread of *debility* and *putrescency* in fevers of the east; phantoms which, we have reason to know, still haunt the imaginations of numerous practitioners in that quarter of the globe, but which the present essay is well calculated to dispel. Mr. J.'s own plan of treatment, the result of painful experience, is thus described:—

“ The first symptom that claims our most serious attention in this disease, is that irritability of the stomach, accompanied by a distressing vomiting. Till this is allayed, nothing can be done towards a cure by medicine. Now venesection has considerable effect in procuring alleviation even of this symptom, but the dribbling manner in which it is too often performed, when it is ventured on at all, does more harm than good. *Bleed boldly and decisively till the head and præcordia are relieved, or draw no blood whatever.* While this is doing, a scruple of calomel, with half a grain or a grain of opium, should be immediately given: this will act like a charm on the stomach. I shall prove, in the course of this essay, what indeed is well known to many of my brother officers who have served in India, that twenty grains of calomel will act as a *sedative*; and so far from griping, or producing hypercatharsis, it will soothe uneasiness, and rather constipate than purge. On this account, in the course of a few hours, when the vomiting is assuaged, some purgative must be given: cathartic extract with calomel, castor oil, or even salts, which will seldom fail to bring away a most copious discharge of intolerably fetid, bilious, and sterculent matter, to the unspeakable relief of the head and epigastrium. If there be now a return of any of those dangerous symptoms, intense head-ache, delirium, or pain in the epigastric region, no apprehension need be entertained of the lancet once more. Those bug-bears debility and putrescency still paralise the arms of medical men in hot climates, notwithstanding the clearest evidence in favor of venesection, particularly where the subject is lately from Europe, and not broken down by the climate. Immediately after the operation of the cathartic, the main-spring of the cure must be acted on. For this purpose, from five to ten grains of calomel, according to the urgency of the symptoms, combined with half a grain of opium, should be exhibited every four or six hours till pyalism is raised, when, in nineteen cases out of twenty, there will be a remission of all the symptoms, and safety secured.” P. 45-46.

Mr. J. condemns the use of emetics, and recommends
cold

cold applications to the head, with pediluvium, and a cathartic every day.

In a long and interesting dissertation on marsh miasmata, Mr. J. brings forward numerous original facts and curious incidents illustrative of the nature and effects of these invisible agents on the human constitution, accompanied with many judicious cautions in guarding against their deleterious influence.

In this section, Mr. Johnson has ventured, apparently with hesitation, into the intricate maze of theory. Aware of the difficulty, perhaps the inutility, of the subject, he confines himself to an attempt at explaining the more prominent features of the *ratio symptomatum* in fever; and, as there is both novelty and ingenuity in this part of the work, we shall allow Mr. J. to explain in his own words.

"First then, we need not be ashamed, however unfashionable (query does he not mean fashionable?) it is, to conclude with the immortal Cullen, that the remote cause of this fever, as well as that from contagion, is a sedative. That its application or reception diminishes the sensorial energy. That the power of the heart and arteries is first weakened, the consequence of which is an inability to propel the blood to the surface: hence the quiescence of the capillaries, the shrinking and coldness of the external parts, *without the intervention of spasm*. In this state, it follows of course, and is allowed by all, that the blood is confined to the heart and large internal trunks of vessels. But this does not appear sufficient to account for the swelling, tension, oppression, and even pain about the hypochondria, as well as many other of the symptoms attendant on the cold stage in particular. If, during the latter, I place my finger on the radial artery, and endeavour to estimate its calibre, and the quantum of blood transmitted through it, in a given time, compared with what takes place in the hot stage, or even in health, I shall conclude that the artery is not then above one third the size, nor the quantity of blood passing through it, more in proportion. Such being the case, it is difficult to conceive how the whole mass of blood can be in *actual circulation* at the time. In addition, therefore, to the confinement of a large share of it to the heart and great vessels, when its motion must be slow, I suppose another considerable portion of it to be *arrested*, as it were, and accumulated in certain situations, where it remains, *pro tempore*, *out of the course of the circulation*.* This congestion or complete quiescence takes place in the *portal circle*, where the blood is at all times languid in its current, there being no *vis a tergo*, and but little muscular propulsion. The consequence of this must be, that not only the liver and the various branches of the vena portarum will become turgid, but also the spleen, (which

* He ought to have said, "out of the course of *actual* circulation."—Rev.

returns its blood to the heart through this channel) the stomach, pancreas, and intestines, will feel the effects of this turgescence. If it be asked why the blood should cease to circulate in these parts, sooner than in others? I answer that the portal is the only circle or set of vessels in the sanguiferous system, *originating and terminating* in capillary tubes, or inosculation with other vessels. They begin by the minutest threads from the stomach, spleen, pancreas, and intestines; enlarge as they approach the liver, where they diverge, and finally dwindle again into the same diminutive size with which they commenced. All other veins dilate as they approximate to the heart, affording more and more facility to the return of the blood, which is in most places assisted by the action of circumjacent muscles. The temporary quiescence or torpor then, of the extreme branches of the vena portarum in the liver, from sympathy with the extreme vessels on the surface (before alluded to) must completely check and arrest the reflux of blood from the whole of the viscera above-mentioned. This state of things at once explains the tension, elevation, pain, weight, and anxiety about the præcordia. It shows why the biliary and pancreatic secretions are entirely suppressed for the time, while the gradual accumulation and temporary abstraction, as it were, of so great a proportion of the vital fluid from the circulation, will readily account for most if not all the phenomena of the cold stage, many of which were before inexplicable." P. 96.

Mr. J. pursues the subject with great ingenuity, but our limits prevent us from accompanying him. The next section, on bilious fever, presents us with a practical view of that disease as it exhibited itself on the great mass of a ship's company; and, although we cannot agree with Mr. Johnson in separating this from the marsh remittent fever, his practice and observations appear to be sound, and merit great attention. If this essay does not open the eyes of medical men towards the utility or rather the necessity of venesection and intestinal evacuations in fevers of the east, they must be proof against the clearest deductions.

The 4th section, on Endemic of Batavia, will be read with more than usual interest at the present time, as it is the only detailed or minute account which we have of that dreadful fever. The medical history of the expedition to that settlement is related with animation, and the cases are detailed with clearness and Hippocratic terseness. The pernicious effects of bark and wine are here placed in a conspicuous view, and the great determination to the liver and brain are fully demonstrated.

The 5th section, on Yellow Fever, or Endemic of the West Indies, written, as Mr. Johnson informs us, by a physician of first-rate talents, now in this country, and who had charge of an hospital nearly six years in the West Indies, is a most valuable communication, and, we trust, will be instrumental

in saving the lives of thousands of our countrymen who come within the range of that fatal endemic. Its author disclaims the idea of contagion, and details with singular perspicuity the means of subduing this herculean fever by venesection, cold affusion, mercurial purgatives, and, as the vascular action subsides, the gradual exhibition of wine or other stimulants, particularly the carbonate of ammonia. From this last medicine being so strongly recommended, we suspect the present physician of Deal Hospital to be the ingenious author of the section in question, though for the truth of this we do not pledge ourselves.

In the 6th section, on Hepatitis, the influence of hot climates on European constitutions is placed in a newer and clearer light than in any work with which we are acquainted. It is here that Mr. J. brings forward numerous cogent proofs of the sympathetic connection between the skin and liver, or perspiration and biliary secretion, as detailed from page 265 to page 275. This subject is calculated to excite a more than usual interest in the medical world. After a full detail of the symptoms and treatment, a dissertation follows on the reciprocal influence which the mental and hepatic functions exert on each other; and this part of the work, though not strictly of a practical nature, gives us a very favorable idea of the author's reasoning powers.

The 7th section, on Dysentery, opens with a biting irony on Dr. Moseley's extravagant predilection for the ancients and their prescriptions in this disease. The discrepancy of opinion, and contrariety of practice, in dysentery, are strikingly set forth as puzzling the young beginner more than even fever. Mr. Johnson appears particularly happy in his application of that principle or sympathy (cutaneo-hepatic) of which we have spoken, both to the proximate cause and cure of this formidable complaint. We shall here introduce a short extract to convey his meaning in his own words.

"In every case of dysentery that has ever come within the range of my observation, (and the number has not been inconsiderable) two functions were invariably disordered from their very onset, and soon drew other derangements in their train. These were the functions of the skin and of the liver, or perspiration and biliary secretion. I defy any one, who has minutely regarded the disease, at the bedside, to produce a single instance in which these functions were carried on in a natural manner, at any period of the disease." P. 354.

"These, then, are the two first links of that morbid chain connecting the

the remote cause with the ostensible form of the disease. Whoever can break these by restoring those two functions to their natural state, I care not by what means or medicines, he will cure, or rather prevent, the disease—"et erit mihi magnus Apollo." Some other invisible, at least very obscure links are now to be noticed, for, however confidently a *proximate* cause may be decided on in colleges and closets, it is in nature a series of causes. The equilibrium of the circulation becomes disturbed. In consequence of the torpor in the extreme vessels on the surface, the volume of blood is directed to the interior, and the balance is still farther broken by the check which the portal current meets in the liver, from a corresponding torpor in the extreme or secreting vessels of that organ, the effect of which is that the plethora in the cœliac and mesenteric circles is now greatly augmented, and febrile symptoms commence. The perspiration being stopped, a vicarious discharge of mucus and acrid serum is thrown from the extremities of the turgid mesenteric vessels upon the internal surface of the intestines, which, by this time, are in a state of irritability." P. 356.

But we cannot pursue this subject further, nor analyse the succeeding sections, all of which are exceedingly interesting. We were about to make some reflections and pass some censures on the severity which Mr. J. occasionally evinces to his contemporaries, but we have found so much to admire that we are unwilling to exercise our critical functions in finding fault.

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Medico-Chirurgical Transactions. Published by the Medical and Chirurgical Society of London. Vol. III. 8vo. Lond. 1812.

(Continued from p. 170.)

ART. XVI. *A general View of the Composition of Animal Fluids.* By J. BERZELIUS, M.D.

Of this long article, on the Composition and Chemical Properties of Animal Fluids, by the Professor of Chemistry in the College of Medicine at Stockholm, we gave such an account in our last Half-yearly Report, as will preclude the necessity of going into it here. It contains analytical researches on the blood, in all its constituent parts—the chemical properties of fibrin—the chemical properties of the coloring matter—an inquiry into the influence of the iron, as producing its color, contained in the coloring matter—the serum—the albumen—and salts of the blood. It examines, by chemical analysis, the secreted fluids, viz. bile, saliva, the mucus of mucous membranes, the fluids of serous membranes, the humors of the eye; also the excreted fluids, viz. the fluid of perspiration, urine, and milk.

NO. 175.

M H

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As a specimen of the results of the author's inquiry, his analysis of urine is inserted.

1000 parts of urine are composed of

Water	933.00
Urea	30.10
Sulphate of potass	3.71
— of soda	3.16
Phosphate of soda	2.94
Muriate of soda	4.45
Phosphate of ammonia	1.65
Free lactic acid	
Lactate of ammonia	
Animal matter soluble in alcohol, and usually accompanying the lactates	17.14
Animal matter insoluble in alcohol	
Urea not separable from the preceding	
Earthy phosphates with a trace of fluat of lime	1.00
Uric acid	1.00
Mucus of the bladder	0.32
Silex	0.03
	<hr/> 1000.00

ART. XVII. *A Case of Fungus Hamatodes.* By GEORGE LANGSTAFF, Surgeon.

A perspicuous history of the progress of this dreadful disease, as it extended nearly to the whole frame. It began on the left shoulder, just below the spine of the scapula, at least it was visible first there, in the form of a tumor, about the size of a cherry, of a bluish red color. From thence it extended to the left axilla, where was the main bulk of the disease. Dissection discovered it on the sternum, in the liver, the pancreas, in the colon and the cæcum, the lungs, the pleura-pulmonalis, on the cranium beneath the pericranium, and on the dura mater, beneath the occipital bone.

What the peculiarity of the idiosyncrasy is that generates this disease, or what methods can be employed to stop or retard its fatal progress, remain yet in obscurity. The subject of this case was a boot-maker, about 90 years of age, of middle stature, rather corpulent, and of that sallow complexion peculiar to a female whose constitution has been impaired by long obstruction of the catamenia.

ART. XVIII. *History of a severe Affection of the Organs of Respiration, with the Appearances on Dissection, and Remarks.* By A. P. WILSON PHILIP, M.D.

The causes producing this singular and fatal case of dyspnœa, are left, both by observation of the symptoms, and examination

examination *post mortem*, in great obscurity; as well as is the *modus operandi* of emetics in producing the extraordinary relief of symptoms. How far the deficient carbonization of the blood was a cause or effect is doubtful; or if an effect, how far it might also become a cause aggravating symptoms and hurrying on the final termination, we fear must be left in a state of similar indecision. As a record of facts, and totally independent of opinions, this communication may be looked to as a valuable document.

ART. XIX. *An Account of a new Mode of Treatment in Chronic Rheumatism, and especially in Sciatica.* By ALEXANDER MARCET, M.D. F.R.S.

The value of this article, if the case is fairly related, and we feel no hesitation in believing it so to be, will place it very high in the scale of the *Methodus Medendi*. It consists in a peculiar mode of exciting perspiration, and is prefaced by some sensible remarks.

"I have frequently had the opportunity of observing, for the last six or seven years," says Dr. Marcet, "that the profuse and unavailing sweats which often spontaneously take place in the early stages of rheumatism, and exhaust the strength of the patients without alleviating their sufferings, are almost in every instance checked, and the pains proportionally relieved, by the use of antimonial medicines. The explanation which I ventured to offer of this paradoxical result, was, that the profuse flow of moisture from the pores, is not, in itself, the circumstance which diminishes pain in rheumatic affections; but that the relief is produced by a certain condition of the surface, or peculiar action of the cutaneous vessels, though generally productive of moisture, is not necessarily connected with profuse perspiration. It is this peculiar action which antimonials are so apt to promote; and there is no difficulty in conceiving, how the violent and colliquative paroxysms which occur in rheumatism, gradually yield to this gentle and uniform operation."

The new mode of treating chronic rheumatism, is *exciting perspiration by muscular action, with an increased quantity of clothing*. It was suggested to the patient, who relates his own case, by a celebrated race-horse (Vandyk) having been cured of a disorder which had all the symptoms of rheumatism, *by sweating in body-cloths*. The writer of this history had suffered several years by rheumatism, and particularly by that form of it denominated sciatica, when the above fact came to his knowledge. Having determined to pursue the method, which is similar to that employed by the New-market riders for the reduction of their weight,

"I clothed myself," the writer says, "in a sufficient quantity of flannel, and set out to walk as far and as fast as I could. With the

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utmost difficulty I proceeded half a mile, and the pain I suffered contributed not a little to the effect of the exercise in promoting perspiration. I returned home in a profuse sweat, rubbed myself dry before a fire, and went to bed. In about an hour I got up, found myself very much fatigued, but in other respects not worse. Forty-eight hours after this, I repeated the same kind of exercise, and found that I could walk a mile with as much ease as I had walked half that distance on the first day. My general sensations were the same as before; but, as the fatigue diminished, I thought I could perceive an amendment in my rheumatic pains. Two days afterwards I took a third walk, proceeded as before, and after it had a better night, less interrupted by pain than any I had enjoyed for eighteen months. Every succeeding walk has diminished my sufferings, and I may safely say that, after the sixth, I was as free from pain as I had ever been in my life. The only remnant I have left to remind me I was so lately a cripple, is a weakness in the left leg, particularly about the ankle, together with now and then a slight sensation of numbness along the sciatic nerve. I usually proceed to my sweating walks in the following manner: next to my skin I wear stockings, drawers, and a shirt, all of fleecy hosiery; over these I put one, two, or three, flannel drawers; one, two, or three, flannel waistcoats; and round my hips and loins I gird six yards of thick flannel; making, beside the drawers and waistcoats, eight thicknesses of flannel on the chief seat of the pain, and the origin of the sciatic nerve: over all this I wear warm pantaloons, and a great coat. When I have walked one or two miles, more or less, according to the heat of the day, I am generally in a profuse perspiration. I do not perceive that the quantity I perspire, has any influence on the efficacy of the remedy. I imagine that a violent action produced in the general system is the chief cause of its salutary effect. In consequence of this opinion, I cease the exercise the moment that a very increased action is well established. This is fully produced with the above quantity of clothing in moderately warm weather, by walking from one to two miles. When the excitement is well established, I find my pulse rise to between 90 and 100, and it is full and strong."

For a minute detail of particular circumstances, and a table of the variations of weight during this process, we must refer to the volume itself.

**ART. XX. Appendix to the Paper on *Cynanche Laryngea*.
By J. R. FARRE, M.D.**

This is a valuable addition to Dr. Farre's former paper; a distinction between *Cynanche Laryngea*, and *Cynanche Trachealis*, is its principal object.

"In *Cynanche laryngea* the symptoms are, uneasy sensations in the larynx, difficult and painful deglutition, partial swelling in the fauces, a supervening and perpetually increasing difficulty of breathing, inflammatory fever. In the *Cynanche trachealis* there is a difficulty of breathing, without any swelling in the fauces, or painful deglutition;

glutition; the expirations, especially in coughing, are very shrill, the fever is inflammatory. In both the voice is changed, and in extreme cases is suppressed; the termination is by suffocation.

"The following are the morbid appearances. In *Cynanche laryngea*, the mucous membrane investing the epiglottis and the margin of the glottis is inflamed, serum is effused under it, or coagulable lymph on its external surface, by which the rima glottidis is narrowed, or actually closed. In *Cynanche trachealis*, the mucous membrane of the larynx and trachea is inflamed, and a layer of coagulated lymph is formed on its internal surface, from the extremity of the epiglottis to an indefinite extent within the trachea, by which the tube itself is narrowed or actually closed. A puriform fluid, instead of mucus, is found in the trachea and bronchia."

ART. XXI. *Some Remarks on the Use of Nitrate of Silver, for the detecting of minute Portions of Arsenic.* By ALEX. MARCET, M.D. F.R.S.

The general subject of this paper has had a full discussion in our Journal, particularly as respected the claim Mr. Hume of Long-acre had to the discovery of this test. The nature of the dense yellow precipitate which is produced by the application of minute quantities of solutions of ammonia and nitrate of silver, where the smallest quantity of arsenic is present, is the object of these Remarks; and is an answer to some objections made against this test by Mr. Sylvester of Derby, and published in Nicholson's Journal, vol. xxxiii. p. 306.

ART. XXII. *History of a Case of Remitting Ophthalmia, and its successful Treatment by Opium.* By JAMES CURRY, M.D. F.A.S.

This is an elaborate detail of the author's own case. It is singular in the extraordinary degree of pain with which it was accompanied, and in the remarkable efficacy of opium taken in very large doses. As a specimen of bold and decisive practice, and ingenious reasoning, Dr. Curry's paper will not disappoint the reader.

A Practical Treatise on the Remittent Fever of Infants, with Remarks on Hydrocephalus Internus, or Water in the Brain, and several other Diseases; and Cases and Observations designed to illustrate the Influence exerted by a certain disordered State of the Chylopoietic Viscera upon local and constitutional Diseases, and to prove the utility and necessity of removing it, in order to facilitate and establish their Cure. By JAMES MILLMAN COLEY, Member of the Royal College of Surgeons in London, &c. 8vo. pp. 156. Underwood and Longman and Co. 1813.

THE disease treated of in this publication is familiar to practitioners,

practitioners, though we doubt whether all who have noticed it, regarded or treated it as fever. We do not, in fact, consider the name a very appropriate one, but it may serve for the nursery; and the author has much stronger pretensions to reputation than those which he might derive from naming a disease which has been termed marasmus, consumption, worm fever, bilious fever, typhus, &c. according to the taste or the judgment of the writer. Now, in our opinion, these are names of diseases entirely distinct from each other, and we also conceive we frequently meet with a remittent fever very different from the complaint before us. In some respects then, it is advantageous for a man not to be burthened with much reading: he may more securely investigate the case presented to him as it really appears, without being disturbed by names and authorities that might shake his judgment. What unlearned man, for instance, seeing a child whose appetite and strength had *gradually* sunk, with an inaptitude for exertion, irregularity in the bowels, and a wasting of the whole body, would think of *typhus* fever, or indeed of any sort of fever? But such is the commencement of the *remittent fever*.

“ After these symptoms have continued for some time, the patient has several accessions of slight fever, more particularly towards evening; during which he evinces a strong propensity to sleep, seeks a recumbent posture, and is exceedingly peevish. The tongue at this period has seldom an unhealthy appearance, because digestion is not yet completely suspended. The pulse is an hundred or more in a minute.

“ In this situation the patient will sometimes continue during several weeks, and at others will be suddenly attacked towards evening with a more violent paroxysm of fever; which is frequently considered by the parents to be the commencement of his disease. It is generally preceded by a shivering fit and vomiting, but seldom terminates with perspiration, the skin being remarkably dry through nearly the whole course of the complaint. The pulse during the paroxysm beats from an hundred and thirty to an hundred and sixty in a minute, and the respiration is performed with corresponding velocity. The cheeks are flushed, and the sleepiness is increased to an extreme degree, but is frequently interrupted with starts, expressions of pain about the belly, slight delirium, and sometimes with convulsions. A cough is noticed at this time, which generally continues through the whole of the illness, together with an almost constant picking of the skin about the eyes, nose, lips, and fingers.

“ The duration of the febrile paroxysm is usually one or two hours, but in some instances will extend through the whole night, after which a remission takes place, and the patient becomes more wakeful and inclined for amusement, or it will sometimes terminate in sleep of a refreshing nature. The pulse now beats from an hundred and twenty to an hundred and thirty.

“ The

“ The return of these exacerbations is uncertain : most commonly there is one in the forenoon, one in the afternoon, and one in the night. The last is usually the longest and most violent. When the fever runs very high, we have much difficulty in observing any distinct remissions.

“ There is much variation in the temperature of the body, the head, belly, and palms of the hands being more hot than any other parts on the surface.

“ In some instances, the head is more affected even to a degree of raving, and one or other of the excretions is always remarkably increased. After this the patient becomes quieter than usual, says little, complains of nothing, and is not disposed to answer questions. He seldom asks for any thing, but in general takes his food or drink when it is offered him. The trunk of his body keeps to one posture, and he rarely moves his lower limbs; but his arms or hands are almost constantly in motion when he is awake. Sometimes he is flinging about his arms; sometimes he lies with his hands stretched down on the lower part of his belly, and his knees drawn up. At other times he is much employed in picking, not only his nose and lips, but even his tongue, eyes, and other parts of his face, till they become sore and chopped; and he gapes that he may reach his tongue, for he has not the power of putting it out of his mouth. At last his indifference as to answering questions ends in an impossibility of giving answers, for he is deprived both of speech and voice; and his jaws, in some cases, are so locked that nothing but liquids can be got into his mouth, and these with a good deal of difficulty. At this period, which seems to be the height of the disease, he slumbers, and is most composed, as usual, during the exacerbations; and in the remissions he performs the same gesticulations. From the time that there are settled symptoms of lowness, his eyes are reddish, dull, and inattentive; his countenance is marked with distress; his tongue, gums, teeth, and lips, are covered with a blackish fur; he is particularly uneasy before stools, or great explosions of wind; his urine and stools are involuntary, and yet he is quite sensible.’

“ ‘ The state of the belly is uncertain; but the stools are always unnatural, either as to their color, consistence, contents, or smell. Most commonly they are morbid in all these respects, for they are either whiter or darker than natural: they are always more offensive, are seldom without a great deal of slime, and sometimes consist of nothing but slime.’*

“ ‘ Digestion seems perfectly at a stand, for the food which is taken into the stomach will often be brought up unaltered, though it shall have remained down a considerable time. The intestines also seem to be in a manner paralysed: they exert no action on the food, for it passes off like a mass of putrid vegetable and animal matter, which has been some time subjected to heat and moisture, without its having

* “ ‘ *Treatise on the Infantile Remittent Fever*, by W. Butler, M.D.—Callow, London,”

the smallest resemblance, either in appearance or smell, to those *faeces*, where the powers of digestion have been exerted.

“ ‘When the disease has continued some time, the appetite is so totally destroyed, that for six or eight days together I have known the whole nourishment consist of about half a pint of toast and water in the twenty-four hours.’ ”

“ I have frequently known that the patient has taken nothing but water, excepting his medicines, for four or five weeks together, and yet has ultimately recovered.”

These are the leading and most usual symptoms of the complaint. But Mr. Coley has noticed some others, as *petechiæ*, and a discoloration and separation of the epidermis, in the advanced stage of the complaint.

The diseases it is likely to be confounded with, are *enlargement of the mesenteric glands*, and *hydrocephalus internus*. The author also mentions *inflammation of the lungs*, which we should have thought hardly possible, had he not stated that he had known many instances of such a gross blunder.

“ It may be distinguished from *enlargement of the mesenteric glands*, by the accession of fever occurring in the latter generally in the evening only; by the patient being more restless at that time, instead of being inclined to sleep, as in remittent fever; by the intestinal evacuations having but little alteration from their natural appearance, that is to say no more generally than what may be supposed to arise from a defective absorption of chyle; by a peculiar mark of distress in the countenance; by the sleep being for the most part undisturbed; and by the length of time the complaint has existed. The fever accompanying enlargement of the absorbent glands in the mesentery, is of a hectic nature, generally terminates with profuse perspiration, and, in every instance that I have seen, has been free from delirium.”

If any of our readers think they cannot distinguish the remittent fever from inflammation of the lungs, we refer them to Mr. Coley’s treatise, where they will find the distinction very minutely drawn. The disease, we doubt not, is often confounded with *hydrocephalus internus*: we shall, therefore, quote this part of Mr. Coley’s diagnosis.

“ The symptoms denoting *hydrocephalus internus* cannot be confounded with the other disease, until effusion has taken place to such an extent as to compress the brain and impair its functions. In its previous stage a manifest difference must have been observable, from the acuteness of the pain in the head, from the intolerance of light, from the agitation or tossing of the head, and from the absence of

* “ ‘A Practical Treatise on Various Diseases of the Abdominal Viscera, by C. R. Pemberton, M.D.’—1806. G. and W. Nicol, London.”

sleep;

sleep, to which must be added, the *healthy* state of the bowels. It might also be suspected that this disease is commencing when the above symptoms have been observed to succeed much irritation about the gums during the formation and evolution of the deciduous teeth; as it is not uncommon for it to arise from the inflammation of the membrane lining the alveolar processes, or of the capsules of the teeth being translated by the operation of sympathy, or some other cause, to the membranes of the brain.

"When effusion has commenced, the symptoms are such as proceed from compression on the brain from other causes, as squinting, interrupted or stertorous breathing,* paralysis generally on one side of the body, insensibility to external stimuli. At length the pupils are dilated and insensible, the pulse intermits, the eye-lids are half closed, the evacuations are involuntary, and in this stage of the disease those from the bowels are often of a greenish or other unhealthy appearance.† The countenance is pale, the muscles of the face are generally distorted, and convulsions often arise and continue from the time the apoplectic symptoms commence, till death closes the scene.

* "The patient in this state generally performs about three respirations, and then ceases to breathe for some time, after which respiration commences again for three or four times, and so on. This interruption arises from the comparative insensibility of the lungs, in consequence of a fluid effused on the brain, compressing the origin of the nerves. The circulation of venous blood, which takes place after the oxygen has been all absorbed from the pulmonary air-cells, produces a disagreeable or painful sensation, called suffocation, which rouses the diaphragm and the other inspiratory muscles into action, and a deep inspiration comes on, followed generally by two or three smaller inspirations, by which means the painful sensation is removed. When the pressure on the brain is very great, the heart neglects its duty, which occasions an intermitting pulse. This arises from the sensibility or irritability of that viscus being so much impaired, as to suffer the venous blood to accumulate in the right auricle, till the pressure of it produces a stimulus that excites it into action, and the circulation goes on again."

† "It may seem extraordinary that in the early part of this disease no affection of the bowels should exist, and that it should make its appearance as the original disorder advances. The cause of it is a torpor of the liver and of the stomach and bowels, produced by the pressure of the fluid effused on the brain, and particularly on that portion of the great sympathetic nerve which proceeds from it, and extends to those important viscera. In consequence of this, the healthy secretions of those organs are suspended or obliterated, and the fæces are of nearly the same disordered appearance as in remittent fever. When this occurs exclusively from pressure on the brain, and is unaccompanied with remittent fever, I have always considered it a dangerous, and have generally found it a fatal symptom."

"In this complaint the muttering expressions are incoherent, the screamings are acute and loud, and, as was before observed, the patient cannot be roused to attend to anything, being like one in a profound sleep. While the sense of pain continues, the hands are constantly carried towards the head.

"In the delirium or stupor of remittent fever, the attention of the patient may be excited for a few moments by strong external impressions, as by talking loudly to him, or by sudden agitations of his body, and there is never any tossing of his head from one side to the other, but, on the contrary, the child is disposed to be still, and to remain in one posture, unless roused by the officiousness and anxiety of his friends or attendants. The face is flushed, and the eye-lids are closed, or, if wide open, they have a foolish disagreeable kind of stare, which is particularly conspicuous in those cases where the patients possess a perfect knowledge of every thing that is going forward, but are unable to articulate. The respiration is quick, but *not interrupted*; and the pulse *never intermits* excepting in cases of extreme debility. There is no squinting; the pupils are sometimes contracted, and sometimes dilated, according to the degree of stupor; and when temporary paralysis happens, it is in those parts which are *subservient to the power of volition*. The hands are seldom carried up towards the head, and when they are, we may perceive that the intention is that of picking the skin about the face, and not that of expressing pain in the head. When convulsions happen, it is impossible during their continuance to distinguish the two diseases, but after they have ceased, if they may have proceeded from remittent fever, the faculties of the patient will be restored.

"The tongue, in both diseases, is furred when the bowels are affected.

"In addition to what has been stated, it may be remarked, that in every case of hydrocephalus internus that has come under my care, I have observed, before any attack of the disease, a peculiar dullness about the eyes, with some dilatation of the pupils, which have appeared to dispose the children to keep the head in a prone position, or to incline it to one side."

For the author's account of the remote causes of the complaint, we must refer to his work. The proximate cause he considers to be a torpor or defective action of some part or of the whole of the chylipoietic system.

"When this has taken place, digestion is at a stand, and the food, instead of being converted into chyle for the nourishment of the body, undergoes a kind of putrefactive fermentation, which is considerably promoted by the heat of the body and accidental constipation. This mass of highly disordered contents occasions considerable irritation in the bowels, which is evinced by the occasional pains, by the itching of the skin on the face, and various other parts, and by the general restlessness of the patient; and if it be not removed, the fever soon commences."

"As remittent fever advances, it has been before remarked that
extreme

extreme emaciation and debility appear. When we reflect upon the highly disordered state of the bile, if any be secreted, and upon the suspension of the digestive process, we cannot rationally expect that any chyle can be formed, or if that could happen, that it would be in a proper state for the lacteal absorbents to imbibe. As this is the principal source whence the body can derive its nourishment and strength, it must follow of course, when this fails, that emaciation and weakness will present themselves. The only supply, during the long abstinence that obtains in the disease, proceeds from the absorption of fat that may have been accidentally deposited in the cellular substance. After this state has continued many weeks without a return of the healthy functions of the digestive organs, the blood becomes attenuated or in part depraved for want of a supply of chyle, and is effused on various parts of the body; whence in the skin we observe petechiæ, and from the stomach and bowels bloody evacuations."

Whatever opinion may be entertained thus far respecting Mr. Coley's publication, we doubt not that he will receive the thanks of his brethren for communicating a faithful history of his judicious and successful treatment, as well as obtain the more substantial reward of increasing practice and reputation. Having determined the proximate cause of the disease to consist of a disordered action in some part of the digestive organs, the indications of cure, says Mr. Coley,

"Must be to expel from the intestinal canal any irritating materials that may have accumulated, and to excite the disordered parts into a vigorous and healthy action. These purposes may be answered in some measure by the exhibition of purgatives, but more completely and expeditiously by some preparation of mercury, which, when properly administered, is capable of promoting, in a peculiar degree, a healthy state of the viscera, concerned in the formation and absorption of the chyle. As the grand objects to be had in view are the encouraging a secretion of bile, when that is defective, and of the succus gastricus and intestinalis, so we must continue the employment of the mercury until these salutary changes occur. The manner in which I have given this medicine, and the extent to which I have carried it, may, to those who are unacquainted with its utility, appear very unusual. I was first led to the more general use of it by observing the rapid recovery consequent to the administration of a few doses of the oxyde or submuriate, in small quantities, in several cases of this disease, after a long continuance of purgatives had been productive of no benefit. These first cases were such as arose more particularly from a deficient action of the liver only, but I soon found that the same salutary consequence resulted from the employment of this medicine in those depending on disordered action in the bowels. I was the more pleased on observing the beneficial effects of the practice, on account of the frequent failures I met with by pursuing the usual mode of treating the disease only with aperient medicines. By that plan I lost many patients; but since I have adopted the other

mode of practice, although I have had hundreds of cases under my care, the complaint has not terminated fatally, excepting in one instance, where effusion took place in the brain, constituting hydrocephalus internus, in consequence of extreme debility from a previous disease.

“ The intention with which most practitioners exhibit mercury in this disorder, is that of exciting a strong peristaltic action in the intestines;* but it will be found to exercise a still more speedy and beneficial influence when given with the view of its being absorbed into the system, when it rouses the liver to secrete its bile, the stomach to prepare the gastric juice for the purpose of digesting the food, and the intestines to convert that digested food into chyle, for the nourishment and repair of the enfeebled and emaciated frame. With this design I have in general continued it nearly through the whole of the illness, and have frequently, when it was requisite to produce a purgative operation, given four or five grains of the submuriate every other day, or oftener, for several weeks in succession, not only without any inconvenience, but with the most manifest advantage. Although my practice has been so bold and decisive, I have not met with a single instance of ptyalism nor of mercurial erythema; and the debility consequent on the evacuations has been incomparably less than would have resulted from the natural progress of the disease, or the common mode of treating it. That a return of the healthy action of the digestive organs, a circumstance most desirable in this complaint, may with justice be attributed to the agency of this medicine, I think this fact will testify, namely, that in some very obstinate cases, in which, either from defective absorption, or from its passing off too rapidly from the bowels, it has not produced any salutary change after a long period of time, I have been induced to give half a grain or a grain of the submuriate, or a smaller dose of the oxyde, twice daily, which, at the end of three or four days, has generally effected a secretion of bile, removed the unnatural appearance of the *feces*, and been speedily followed by a re-establishment of health.

“ In simple cases of this disease, I know that the employment of purgatives alone will succeed; but in most of the cases requiring my assistance, there has been such an extreme torpidity of the chylipoietic viscera, as to render the use of mercurials necessary. In these instances, nothing with which our art can furnish us, could have saved the patients from destruction, had not the most vigorous measures and firm conduct been pursued.

“ As soon as I have visited a patient ill with this fever, I direct a dose of hydrargyri submurias to be given, containing from one to five grains, according to the age and constitution of the patient, the severity of the attack, or the state of the bowels. Two or three hours having elapsed, a draught composed of sulphate of magnesia, tincture of jalap, and infusion of senna, is administered, and repeated every two hours, until a copious evacuation takes place from the bowels,

* “ Hamilton. Pemberton. Butter.”

which

which I always carefully inspect. After this, the same dose of the submuriate is repeated every second night, and the draught the following morning, so as to produce several evacuations, until it be ascertained that the digestive organs have regained their natural energy. This effect will sometimes happen in a few days; at others several weeks will elapse before any favorable change will occur. If the constipation be very great, the aperient draught should be repeated every morning, or a dose or two of sulphate of magnesia, or of any other neutral aperient salt, so as to occasion one or two evacuations daily from the bowels. When the fæces have become healthy, they are found to be of moderate consistence, having some impressions of the larger intestines upon them; to be of a yellow color, resembling powder of rhubarb; and free from mucus and all other matter that is unnatural to them. As long as they seem to have undergone no change in their passage through the cæcum, colon, and rectum, which is known by their fluidity and heterogeneous consistence, I direct the mercury to be given in a *large* dose in conjunction with, or followed by, a purgative, in the manner above described; but after the bowels have resumed their functions, and the only alteration in their contents is found to consist of a preternatural appearance as to color, I order the former medicine to be repeated once in twelve hours, or oftener, according to the urgency of the case, in small doses; by which means, at the end of a few days or a week a secretion of bile takes place, and the disease is entirely removed."

Having already far exceeded the space we had intended this small volume should occupy, we must close our notice of it without inserting either more particulars of the author's practice, or citing any of the cases which he has selected for publication. The book is worthy of perusal.

Edinburgh Medical and Surgical Journal, No. XXXIV.

- I. *Singular Case of Lithotomy, performed on a Man who had attempted to saw and break down the Stone in the Bladder.*
By JOHN RODMAN, M.D.

THIS very distressing case of calculus occurred to a man of singular idiosyncrasy, who became and continued very corpulent on small quantities of meagre vegetable diet. Soon after the operation of lithotomy was with great difficulty performed on him, calculi again began to form; and in about a year from the operation, it became necessary to cut into the urethra in the perinæum to extract a calculus lodged there. In three months after this, it became evident that a stone was impacted about the neck of the bladder; and the novel part of the detail rests on the employment of a file and a boring instrument to diminish the size of this stone. These instruments were applied to the calculus, through

through the opening in the perinæum. For a time the patient appeared to be relieved by this contrivance ; but died some weeks after, of mortification of the bladder and intestines.

II. *Observations of the different Hypotheses published to account for the Effects of the Wind of a Ball.*

This anonymous writer considers the opinion of the mischievous effects arising from the "Wind of a Ball," to be the offspring of ignorance and superstition ; and he acutely observes,

" Did the wind of a shot, the tremor of the atmosphere, the accumulation of electricity, or the developement of any subtle matter by the flight of a ball, produce such fatal consequences, it is easy to perceive they must be equally numerous with the wounds which are received by actual contact. For, although it is not susceptible of arithmetical calculation, yet it may be justly inferred, that when two vessels fire right into each other, as many balls pass within a hair-breadth as those that strike men on-board. How, then, does it happen that, among the hundreds and thousands that strew the decks after a long and severe engagement, only one, two, or three, are found without marks of injury? If the principle operates in one instance, it must in all. All the effects arising from mechanical violence are seen and experienced, but those originating from this unknown, or these unknown causes, are heard of only once in ten thousand times."

It does, indeed, appear incomprehensible, if there be such a property or principle as the wind of a ball, possessing the efficient power of destroying life so suddenly, that it should so seldom act, seeing that, in every engagement, so many must come within its sphere of influence. The deaths occurring in battle where no external violence is detectable, are referred to extreme emotion and agitation of mind, by this writer ; and the opinion is supported by analogical facts recurring in civil life from paroxysms of passion.

III. *Observations on the Fever prevalent in the Mediterranean, as it occurred on-board one of his Majesty's line-of-battle Ships on that Station.*

The writer of this paper had been stricken, he says, *à priori*, with the notion that there was something in the climate of the Mediterranean station peculiarly predisposing to inflammation : and his practice and success in the " nearly one hundred cases" of which he gives the result, we cannot doubt confirmed his preconceived opinion.

In the fever here described, the cold stage was short ; prostration of strength, violent head-ache, severe pain at the scrobiculus cordis, and very commonly in the thorax, sometimes

times with dyspnoea, but seldom cough, quickly succeeded the rigor. Full and hard pulse, increased heat, flushed face, rough and dry tongue, and constipated bowels, made up the catalogue of symptoms. Great thirst and irritability of the stomach seldom were present.

This fever occurred in the hot autumnal months, while the ship was at anchor in Port Mahon.

"Blood-letting was the remedy principally relied on, and the extent to which it was carried was regulated by the patient's feelings, viz. either until a remission of pain or incipient delirium took place. Before this was effected, 50 or 60 ounces were frequently abstracted by a large orifice, and, if the pain recurred, I did not hesitate to repeat the evacuation to the extent of 20 or 30 ounces more, within four-and-twenty hours from the first attack; at least this was the practice I latterly followed, and I found it successful. When thus freely employed on the first day, there was seldom occasion to have recourse to venesection beyond a third time."

In the "nearly one hundred cases" three only were fatal, in one of which the symptoms of gastritis were strongly marked; in the other two there was great determination to the brain.

"The three fatal cases alluded to above, were the three first that came under my care, and although, in compliance with the advice of the then physician to the fleet, I had recourse to blood-letting, yet, not being thoroughly aware of the nature of the epidemic, I have reason to regret that I did not, early enough, carry that powerful remedy to the extent that I afterwards found I might do with advantage and safety. Indeed, if six-and-thirty hours are allowed to elapse without due evacuations, the most favorable time is gone, the inflammatory action much increased, and determination to some of the viscera already begun;—blood-letting becomes more than ever necessary, but the patient is less able to bear it."

"In addition to venesection, a moderate purging was kept up by calomel, conjoined with antimony, and assisted by small doses of the saline purgatives, largely diluted, having found that in this way they sat well on the stomach."

"In three cases, where there was no evident affection of the thorax or abdomen, and where the heat was unusually great, the cold affusion was employed. In all the three it procured great temporary relief; but in one, the disease terminated by an extensive abscess, situated over the gluteus maximus, and the other two were attacked, on the succeeding day, by severe pains in the thorax, which were relieved by the liberal use of the lancet."

"There occurred also six or seven cases, apparently slight, and in which, consequently, evacuations were more sparingly employed, but they eventually proved the most troublesome, as the fever terminated in, or was succeeded by, disease of the liver or spleen. Four of these were sent to the hospital, and I do not know their fate; the others recovered on-board, after a long course of mercurial preparations."

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In properly discriminated cases of fever, with great increase of vascular action, and inflammatory determination to particular organs, what doubt can remain of the propriety of blood-letting, proportioned in degree to the peculiarities of individual instances. But by too much generalization and too little attention to the phenomena of individual cases, the phlebotomists and anti-phlebotomists have each fallen into important and alarming errors. The rational practitioner is guided in the management of any case by the peculiarities of that case, independent of hypothesis. A nice knowledge of the quality of the deviations from the actions of health, can alone direct in the choice and application of remedies. A predilection for venesection induces one party to call for more blood on all occasions; while the other, equally wedded to the notion of preventing debility, generally rejects or employs it in too trifling a manner to be useful. If the former mistake because they do not reason, the latter fall into error against reason. The most thoughtless empiricism has not gone further than the first, and the second, by supporting the increased morbid action, actually plunge their patients into the hazardous debility they labor to avoid. "The rapidity with which the patient recovered his strength, on the removal of the febrile action," says the writer of this paper, "notwithstanding those large evacuations, was, for a long time, matter of astonishment to me." In all instances of indirect debility, moderating the increased morbid action, reduces in the same ratio the chance of subsequent weakness. This axiom the reasoners have lost sight of, when they fear to use the means of reducing increased action on the apprehension of future debility.

(To be continued.)

MEDICAL AND PHILOSOPHICAL INTELLIGENCE.

ROYAL SOCIETY.—On Thursday, May the 27th, a paper by Mr. Cater was read, comparing the Cassegrenian and Gregorian telescopes. These telescopes have been hitherto considered as quite similar. Mr. Cater was led to compare them in consequence of telescopes of both kinds being constructed by a self-taught artist at Ipswich, who has acquired the art of constructing both in remarkable perfection. The result of the comparison was, that the Cassegrenian telescope gave a much clearer and better defined image of the object than the Gregorian. Mr. Cater endeavours to account for this difference, by supposing that in the Gregorian telescope the particles of light interfere, and impede one another; while this does not happen in the Cassegrenian.

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On Thursday, June the 3d, part of a paper by Mr. Brande was read, containing additional facts and observations on the use of magnesia in cases of urinary calculus. The paper was divided into two sections. In the first, Mr. Brande related several cases, in which the deposition of uric acid in urine and the accompanying symptoms were removed by the use of magnesia. Among others, a Gentleman of fifty-five was afflicted with pain in the kidney; a calculus at last passed into the bladder, and was voided by the urethra: it consisted of uric acid. His urine deposited a considerable quantity of red sand (uric acid). He tried alkalies, but they disagreed with his stomach. He was induced, in order to alleviate the symptoms of indigestion, to take a tea-spoonful of magnesia daily. His symptoms were gradually removed, and the urine ceased to deposit red sand. Several similar cases were given, in all of which the deposit of uric acid was put an end to by the use of magnesia. But in one case, after a certain time, the symptoms were aggravated, and a white sediment was deposited. This turned out, on examination, to be a mixture of phosphate of lime and phosphate of magnesia-and-ammonia. The object of the second section of the paper was to give an account of the treatment in such cases. Acids were administered, and different kinds were tried. Carbonic acid in the form of soda-water, citric acid, vinegar, cyder, oranges, lemonade, and muriatic acid, were tried in succession. The muriatic acid seemed to have answered worst. The other acids, in several cases related, removed the symptoms without inducing a deposition of uric acid.

On Thursday, the 17th June, Mr. Brande's paper was concluded. Another case was related, in which the deposition of the phosphates in the urine was put a stop to by the use of carbonic acid, produced by mixing lemon juice and carbonate of potash, and drinking the mixture while in a state of effervescence. From these cases Mr. Brande concludes,

1. That when the alkalies, from any circumstance, cannot be used to put a stop to the deposition of uric acid in the urine, then magnesia may be employed with advantage.

2. That the deposition of the phosphates may be put a stop to by the use of mineral acids.

3. That the vegetable acids produce a similar effect, and that they may be employed in much greater quantity, without injuring the digestive organs.

On the same evening a paper was read by Mr. Axlay, of Bristol, on the phenomena of electricity. He began by stating what he considered as his peculiar theory of electricity; but which does not appear to differ from that of Cavendish, unless the fourth proposition be considered as peculiar. The theory consisted of the following propositions —

1. A fluid exists called the electric fluid.

2. It is attracted by all matter, with a force inversely as some power of the distance.

3. Its particles repel each other. Hence it is elastic and compressible.

4. Electrics have a stronger affinity for it than non-electrics.

On Thursday, June the 24th, a paper by Sir Everard Home, Bart. was read, containing additional observations on the *squalus maximus*, or great shark. Two of these fishes were caught at Brighton last December, and one of them was brought to London. It was particularly examined by Sir Everard and Mr. Clift, and this paper stated the result of the new observations. The figure given by Sir Everard along with his former paper is correct, except that a fin between the anus and tail is wanting. The liver is very tender, and consists of six lobes. The gall duct is dilated at the extremity which enters the intestines, the object of which seems to be to prevent the bile from returning into the liver. There is no gall bladder. The heart is very powerfully muscular, and there is a particular muscle connected with the valves, which Sir Everard conceives intended to impel the blood more powerfully through the gills when the animal is at a great depth under water; for the pressure of the water will, in that case, impede the circulation in the gills. It occurred to Sir Everard that this impeded circulation might be compensated by water at great depths containing more oxygen gas in solution than near the surface; but water being taken up from the bottom of a deep well, and examined, was found to contain no more than water at the surface. It may be remarked here, that this trial was scarcely of such a nature as to be decisive. Well water, however deep, is nothing else than rain water which has made its way through the earth to the bottom of the well; and all of it having been equally exposed to the air when falling in the state of rain, ought to contain the same portion of air. The water examined ought to have been taken from the bottom of the sea; but it is not likely that any perceptible difference would have been found. Indeed, the experiment has been already made by Biot, who examined sea water taken up at the depth of 437 fathoms, and found the proportion of oxygen gas in it the same as at the surface. (*Mém. d'Arcueil*, i. 273.) But the swimming bladder being filled with oxygen gas in those fishes that live at great depths, this in all probability is intended to answer some such purpose.

Sir Everard compared the heart of the *squalus* with that of several other animals. The *squalus* has no cerebrum, but only cerebellum. The cavity in which the semicircular canals of the ear is placed is uncommonly large. The lens of the eye is globular, and half sunk in the vitreous humour, which is very firm, and lodged, as usual, in separate cells. The retina is very thin. The cornea consists of three coats.—*Annals of Philosophy*.

Linnaean Society.—At the meetings of this Society on Tuesday the 1st, and Tuesday the 15th of June, a paper by Col. Hardwicke, on the bats in the British dominions in India, was read. He described and exhibited figures of 11 species, most of which inhabit trees, and live on fruits. The most remarkable of these is a very large species, having the aspect of a wolf, and of such a size that, from tip to tip, the wings extend 3 feet 8½ inches. This species the Colonel considers either as the vampyre of Linnæus, or as nearly allied to it. It lives on fruits, and is considered by the Indians as quite harmless.

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The Colonel found that it would eat raw flesh when hungry; but that it preferred fruits. The stories of its sucking the blood of living animals he considers as quite unfounded.

The Society adjourned till the 2d of November.

IMPERIAL INSTITUTE OF FRANCE.

Account of the Labors of the French Institute for 1812.

(Continued from Vol. 29, p. 520.)

Botany and Vegetable Physiology.—Most physiologists have long admitted in plants an ascending sap, which mounts from the roots to the branches, and contributes to the increase of the branches in length; and a descending sap, which goes from the leaves to the roots, and to which some persons ascribe the chief part of the growth of the wood, and of course the increase of size in the trunk.

M. Feburier, a cultivator at Versailles, has endeavored to collect these two saps separately. For this purpose he bored a deep hole in the trunk of a tree, and fixed a bladder upon the inferior surface, so as to prevent any liquid coming from the lower part of the tree from making its escape into this hole. He made another hole in the tree, and placed a bladder in the same way against the upper surface. He considered the sap collected in the lower bladder as the ascending sap, and that collected in the upper bladder as the descending sap. He gives many observations on the relative proportions of each in different circumstances. Wishing, in the next place, to determine the route which each of these saps takes in the inside of the tree, he plunged alternately by the two ends branches of trees in colored infusions. In both cases these infusions appeared to him to follow the woody fibres surrounding the pith. This induces him to ascribe the same route to both saps, in which respect he coincides with the result of other experiments made by Mustel.

M. Feburier thinks, likewise, that the ascending sap contributes principally to the growth of the branches, the descending to that of the roots. But he thinks that the *cambium*, or that humor which transudes horizontally from the trunk, and which is looked upon as the matter which occasions the increase of the tree in thickness, proceeds, like the peculiar juices, from the mixture of the two saps. The presence of the leaves, necessary for the production of the descending sap, is of consequence also for the increase of the plant in thickness. But the buds, which M. du Petite Thouars conceives to act so important a part in that operation, have nothing to do with it, in the opinion of M. Feburier; for it takes place, says he, as long as the leaves exist, and it ceases as soon as they are removed, whether the buds be left or not.

As far as concerns the flowers and the fruits, M. Feburier assures us that he has observed the ascending sap, when it predominated, tending to determine the production of simple flowers, and the complete developement of the germs; that the descending sap, on the contrary, when too abundant, occasions the multiplication of flowers and petals, and the growth of the pericarp, and by consequence of the

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fleshy

fleshy part of the fruit; principles from which it would be easy to deduce many useful practices in gardening, and which explain various practices already pointed out by experience.

According to M. Feburier, the alburnum deprived of its bark, but kept from the contact of the air, is capable of reproducing, by means of the cambium, the bark and epidermis necessary to cover it, as the bark produces constantly, even when partly separated from the trunk, liber and alburnum. In this point he has for antagonist our colleague M. Palisot de Beauvois, who has likewise employed himself in the investigation of these difficult questions, respecting the direction of the sap, and the formation of wood. According to this botanist, this escape of a glossy humor, which some physiologists suppose to proceed from the old alburnum, and to contribute to the formation of the liber, is not founded on convincing experiments. On the contrary, when a portion of bark is removed from a tree, and the wound is well rubbed, so as neither to leave liber nor cambium, neither the alburnum nor the wood produce any thing; but the edges of the bark gradually extend themselves, cover the naked wood, and produce liber and alburnum incontestibly proceeding from that bark. M. de Beauvois announces that he will soon elucidate this proposition at full length, which hitherto he has only noticed incidentally in his *Dissertation on the Pith of Vegetables*.

The opinion of physiologists has been hitherto very much divided about the functions of the pith of vegetables. According to some, that organ is necessary to the life of plants during the whole of their existence: according to others, it is only useful during the first years of their life, or all the time that it is green and succulent, and may be easily confounded with the cellular texture. M. de Beauvois has made on this subject observations which tend to prove that the pith performs functions during the whole life of the plant, if not absolutely necessary to its existence, at least very important for its progress, and the growth of its branches, leaves, and especially of the organs necessary for its reproduction.

He has remarked that the circular layer, or fibres which immediately surround the pith, has always a form corresponding to the arrangement and disposition of the branches, twigs, and leaves: that in plants with verticillated twigs and leaves, for example, the horizontal section of this case of the pith shows as many angles as there are twigs at each stage, and at each verticilla.

In like manner, the medullary case of the laurel rose presents an equilateral triangle, if the branch below the verticilla has three twigs and three leaves; but if we cut it under the lower verticilla, where one of the twigs and leaves is usually wanting, it has only two angles, and the vestige of a third. This law is constant, even in herbaceous plants.

M. de Beauvois has begun similar observations on plants, with opposite, alternate, dichotomous, spiral, and pinnated leaves. He expects to find them in the same relation between the medullary case, and the disposition of the branches, twigs, and leaves. For example, opposite leaves seem to require a round medullary case, becoming
oval,

oval, and having its extremities more and more pointed the nearer it approaches to the insertion of the branches and the leaves. When the leaves are alternate, the circle is less perfect. The extremities become equally narrow, but alternately, and each on the side where the branch is to appear. When the leaves are spiral, the number of angles of the medullary case is equal to that of the leaves of which the spirals are composed. Thus the medullary case of the lime has four angles; that of the oak, the chesnut, the bramble, the pear-tree, almost all the fruit-trees, &c. has five angles, more or less regular, because the spirals succeed constantly in fives.

Grew and Bonnet alone seem to have been on the way of these observations. The first had observed very various forms in the medullary case, especially in that of the conical roots of culinary plants; but he did not observe the relation between these forms, and the dispositions of the branches and leaves. The second carefully examined vegetables with opposite, verticillated, alternate, and spiral leaves; but did not observe the connection of these dispositions with the form of the medullary case.

M. de Mirbel has continued his researches into the structure of the organs of fructification in vegetables, in which he has been seconded with a zeal and intelligence that he takes a pleasure in acknowledging, by M. Schubert, whom the Grand Duchy of Warsovia sent into France to complete his knowledge of botany, which he was afterwards to teach in Poland. These two botanists have examined all the genera of trees with needle-shaped leaves, or the coniferous, one of the most important to be known, on account of the singularity of its organization, of the greatness of the species which it includes, and of the utility of its products. Every body is able to distinguish, at the first glance of the eye, the cedar, the meleza, the spruce fir, the Scotch fir, the thuya, the cypress, the yew, the juniper; but though the botanists have studied with particular attention the organs of reproduction of these vegetables, they are not agreed about the characters of the female flower; or to speak more correctly, the greater number are of opinion that the stigmata of the spruce fir, the Scotch fir, the cedar, and the meleza, have not yet been observed. In this respect, therefore, these trees are in reality cryptogamous. MM. Mirbel and Schubert go farther: they affirm that the female flower of the yew, the juniper, the thuya, the cypress, &c. is not better known; and that all the genera of coniferous plants have a common character, which has hitherto misled observers, and which consists in the existence of a cup, not similar to that in the flower of the oak, but more deep, concealing entirely the ovarium, and contracted like the neck of a bottle at its orifice. The female flower enclosed in this case has escaped observation. In the thuya, yew, juniper, cypress, &c. the cup is strait; and by an error, occasioned by the extreme smallness of the organs, the orifice of this cup has been always mistaken for the stigma. In the cedar, meleza, spruce fir, and Scotch fir, the cup is reversed, and its orifice is very difficult to perceive. It is only within these few years that it has been observed in England by Mr. Salisbury, and in France by MM. Poiteau, Mirbel, and Schubert. These botanists have

have not hesitated to consider it as the stigma ; and this was natural, because it had been agreed upon that the stigma of the yew, the thuya, the cypress, &c. was placed at the orifice of the cup : but farther researches have undeceived MM. Mirbel and Schubert. By a delicate dissection, they have ascertained that what is generally taken for the female flower in coniferous plants is only the cup, the form of which resembles that of a pistil, and that it contains in its cavity the true flower, which is provided with a membranous calix, adhering to the ovarium, and with a stigma, sessile in all the genera except the *ephedra*.

It must be obvious that this structure, so different from what had hitherto been imagined, will occasion great changes in the explanation of the characters, of the family, and of the genera.

According to Mirbel, the female flower of the plants of the family of *cycas* has an organization analogous to that of coniferous plants. This supports the opinion of M. Richard, who places these two families together among dicotyledonous plants ; but M. Mirbel is of opinion, that as long as the characters of vegetation serve for the base of the two great divisions of plants with visible flowers, the *cycadeæ* cannot be separated from the palms.

The organization of the male flower of mosses has likewise engaged the attention of Mirbel and Schubert. After Hedwig, it would have been difficult to discover any thing new on this subject ; but the bursting of the anthers, and the emission of the pollen, were phenomena doubted of by several botanists. Our two botanists declare that they have seen the most unequivocal proofs of the existence of these phenomena. The organs which Hedwig calls male in the *Polytrichum commune*, placed upon water, split at the summit, and threw out an oleaginous liquid, which extended itself like a thin cloud on the surface of the water. Mirbel and Schubert then subjected to comparative observation the pollen of a great number of *phenerogamous* plants, and ascertained that they exhibited the same phenomena as the male organs of mosses. This induces them to think that the parts called anthers by Hedwig may be nothing else than simple grains of pollen of a particular shape.

M. Mirbel has continued his researches on germination. He has observed, contrary to the generally-received opinion, that the radicle does not always make its appearance first. In many cyperaceous plants it is always the plumula which appears first. The same botanist has republished, with important modifications and additions, his opinions respecting the organization of stems, respecting their growth, and respecting the structure, both internal and external, of the organs of fecundation of plants.

M. Henri de Cassini, son of one of our associates, a name so celebrated in astronomy, has presented to the Class a memoir, which augurs success in a different science. He has examined with peculiar care the style and stigma in the whole family of plants known by the name of *compound*, *synguesious*, or *synanthierous* ; and these small organs have exhibited a number of curious differences, which have induced him to propose a division of these plants, founded solely on the modi-

fications of these two parts of the pistil. We regret that we cannot follow the skilful observer in the details into which he has gone, and which he has described and drawn with remarkable neatness. It cannot be doubted but they will one day be of great service in perfecting the classification of this family, so numerous and so natural; the subdivision of which, in consequence, ought to be more difficult than of any other.

There are few families of vegetables so directly useful to man as the grasses, which comprehend wheat, rye, rice, mais, sorgho, sugarcane, barley, oats, millet, &c. To name these plants is enough to show the importance of a work which would enable us to distinguish them with certainty. The characters hitherto employed are generally regarded as insufficient. At each step the observer finds himself stopped. It is difficult, indeed often impossible, to find the true genus of the plant which he examines. Frequently the characters adopted only apply to a few species, and do not occur in the rest of the genus. M. Palisot de Beauvois has undertaken a general examination of this family, which he has published under the name of *Essai d'Agrostographie*. He has endeavoured to put an end to all this confusion, and to give to each genus constant characters, easy to perceive, so that the observer can never be at a loss.

For this purpose he has been obliged to adopt new bases, which he has already announced in his *Flora of Oware and Benin*. These depend principally on the separation or union of the sexes, on the composition of the flower, and on the number of its envelopes. Twenty-five plates, in which all these characters are represented, facilitate the study of these plants, which interest all the orders of society, even those persons who do not make botany a peculiar study.

M. de Beauvois continues his *Flore d'Oware et de Benin*, the thirteenth number of which is published; and his *History of Insects* collected in Africa and America, the eighth number of which has appeared.

M. de la Billardiere has finished his collection of the rare plants of Syria and Libanus, by the fourth and fifth parts. The same naturalist has communicated to the Class peculiar and interesting observations in natural history, which he made during his voyage in the Levant, the publication of which has been interrupted by the longer and more dangerous voyage which he made in the *Entrecasteaux*, an account of which was given to the public several years ago.

M. Gouan, correspondent of the Class at Montpellier, has published a description of the generic characters of the *ginkgo biloba*, a singular tree of Japan, which has been long known in Europe, but which, never having blossomed, could not be properly classified in the system.

There is a family of plants much less important than the grasses in point of utility, but much more singular in their characters, and which can only be seen vegetating on the sea-shore, namely, the *fuci*, and marine plants analogous to them. M. Lamouroux, professor of natural history at Caen, placed favorably in a city so near the coast,

has

has made these plants a particular object of study. He gives them the common name of *thalassio-phytes*, and divides them into various tribes, the characters of which he has been obliged to take in all parts of the plant, because he could not find sufficient characters in the organs of fructification, which usually serve as a basis to these divisions.

Calculus from the Urethra of a Hog.—Dr. Thomson, in his *Annals of Philosophy* for July, mentions that he received some time ago from Mr. Colville, surgeon in Ayton, Berwickshire, a calculus extracted from the urethra of a hog. It is nearly spherical; weighs 44.2 grains; its specific gravity is 1.595; it is white; has a silky lustre; and is composed of a congeries of very small crystals, which, as far as can be judged by the eye, consist of flat four-sided prisms. The calculus is soft, so that the crystals are very easily separated from each other. This calculus is composed entirely of phosphate of lime. When heated with potash, no smell of ammonia can be perceived. The crystals dissolve without effervescence in muriatic acid, and are precipitated in the state of a white powder by pure ammonia.

Hydrosulphurets.—Thenard has lately published some observations on the hydrosulphurets, which deserve the attention of chemists.

1. When a saturated hydrosulphuret is heated along with sulphur, a portion of the sulphur is dissolved, and a quantity of sulphureted hydrogen gas escapes. If there be an excess of alkali, the sulphur is dissolved as usual, but little or no sulphureted hydrogen escapes. Hence we see that the hydrogureted sulphurets contain less sulphureted hydrogen than the hydrosulphurets.

2. When the saturated hydrosulphurets are raised to the boiling point, a portion of sulphureted hydrogen always makes its escape. By this method the hydrosulphuret of magnesia may be decomposed altogether, and hydrosulphuret of lime nearly so. Hydrosulphuret of potash and soda become very alkaline.

3. Hydrosulphuret of ammonia may be obtained in crystals by surrounding with ice a flask containing a mixture of sulphureted hydrogen and ammoniacal gases. It crystallizes in needles, and is white; but becomes speedily yellow when exposed to the air. It is very volatile, rising spontaneously to the top of the phial in which it is kept. By this means it may be separated from the hydrogureted sulphuret of ammonia.

4. When ammoniacal gas and sulphur are passed together through a red-hot porcelain tube, hydrogen gas and azotic gas are disengaged, and a great quantity of hydrogureted sulphuret of ammonia crystallized. When this substance is put into a phial, pure crystals of hydrosulphuret of ammonia gradually sublime from it.

5. The fuming liquor of Boyle smokes in oxygen gas or common air; but not in azotic gas or hydrogen gas. Hence the smoking must be owing to the presence of oxygen. Thenard supposes that it acts by converting the liquor into hydrogureted sulphuret, or into sulphite.—*Ann. de Chim.* lxxxiii. 132.

To

To Medical Practitioners in every Part of the United Kingdom.

The Board of the National Vaccine Establishment have remarked, with great concern, that the mortality from the Small-pox has, this year, increased considerably. This effect they have reason to attribute to the inconsiderate manner in which great numbers of persons are still, every year, inoculated for the Small-pox, at public charities and private houses; and are, afterwards, required to attend two or three times a-week, at the places of inoculation, through every stage of the disease. The contagion, by these means, is propagated in an extensive manner, and to an alarming degree. The same observation has been made in Ireland. The Royal College of Surgeons of Dublin, in a late communication to the National Vaccine Establishment, observe, that "for several years, the Members and Licentiates of the College, and, it is believed, all regular Physicians and Apothecaries in Ireland, have adopted the practice of Vaccination, their confidence in the anti-variola effects of which remains unshaken; but it has been ascertained, that some unauthorised practitioners continue to inoculate for the Small-pox, and thus renovate and support sources of contagion." To obviate this mischief, the National Vaccine Establishment most earnestly recommend to the several branches of the faculty, in every part of the kingdom, after the example of the most eminent members of the profession; both in London and Dublin, to discourage inoculation for the Small-pox, by an agreement among themselves to decline the use of variolous matter.* The Association of the Medical Gentlemen of Gloucestershire, a copy of which is subjoined, is a model of good conduct, which, if imitated in all other parts of the kingdom, would soon open to us the pleasing prospect of the speedy extinction of a disease, which has, for centuries, been no less detrimental to the population of states, than prejudicial to the health of mankind.

FR. MILMAN, President.

By Order of the Board, JAMES HERVEY, Reg.

Resolutions of the Medical Practitioners in the County of Gloucester.

Resolved,—I. That we see, with regret, the prejudices hostile to Vaccination, which exist in this neighbourhood.

II. That the honor of our profession, and the reputation of this county, require that every possible means should be employed to dispel them.

III. That those gentlemen who are satisfied of the efficacy of Vaccination, be requested to unite with us in forming a Society, to be called "The Gloucestershire Vaccine Association."

IV. That the objects of this Association shall be, to promote Cow-pox, and discourage Small-pox Inoculation.

V. That, with this intention, the members of this Association shall individually and collectively declare, that they, considering their knowledge of Cow-pox, do not believe themselves entitled either to

* We refer the reader to the Resolutions of the Royal Colleges of Surgeons of London and Dublin, published in the Report of the Board for 1812, in which their determination not to inoculate with variolous matter, is recorded.

practice, or, in any way whatever, to sanction the use of Small-pox Inoculation,* and that henceforth they renounce it accordingly.

J. BARON, M.D.	}	Glocester
C. B. TRYE,		
R. FLETCHER,		
G. B. DRAYTON,		
C. COOKE,		
J. WILTON,		
JOS. MILLS,		
D. COX,		
T. WASHBOURN,	}	Cheltenham.
W. WASHBOURN,		
H. C. BOISRAGON, M.D.		
C. PARRY, M.D.		
*T. NEWELL,	}	Painswick.
C. SEAGAR,		
W. WOOD,	}	Minchinhampton.
*E. HUMPAGE,		
*S. CAMBRIDGE,	}	Stroud.
T. HUGHES,		
W. W. DARKE,		
*S. SNOWDEN, M.D.		
*S. HUMPAGE,	}	Dursley.
W. FRY,		
H. JENNER,	}	Berkeley.
J. C. HANDS,		
*J. TERRET,	}	Tewkesbury.
*W. DILLON,		
*W. S. EVANS.	}	Newent.
*R. LOVESY,		
*R. FILKIN,	}	N. Gloucester Militia.
*O. W. BARTLEY,		
*J. COOPER,	}	Nailsworth.
*T. JENNINGS,		
*T. SKEY,	}	Wotton-under-Edge.
	}	Chepstow.
	}	Sunday's Hill.

33 Names.†

Resolved,—That this Board do unanimously approve the Resolutions formed at the meeting of the Surgeons and Apothecaries of Gloucestershire; and do earnestly recommend them to be adopted by gentlemen of the profession in every part of the kingdom.

February 19, 1813.

FR. MILMAN, President.

* Unless in a case of *extreme* necessity; for example, the Small-pox breaking out among persons who never had that disease, where no vaccine matter can be obtained.

N.B. We are authorised to add the names of those gentlemen to which the asterisk is prefixed, though we have not yet had an opportunity of collecting their actual signatures.

† This number soon afterwards increased to sixty-three.

The Board of the National Vaccine Establishment having received intimation of an assertion "that vaccination protects people from the small-pox for a few years only," and being deeply impressed with the pernicious consequences which might attend the propagation of so rash an opinion, think it a duty they owe to the public to declare, from the most attentive and dispassionate consideration of the history of this disease, collected from every quarter of the world, that the assertion above-mentioned is wholly without foundation. That the security against the small-pox, where the insertion of the lymph has produced the vaccine disease, is permanent, and there is no space, as far as the lapse of time since its discovery will enable the Board to decide, which renders people who have evidently been vaccinated susceptible of the small-pox. The Board does not advance this proposition upon slight grounds, but upon the authority of actual experiment. The ingenious gentleman, Dr. Jenner, to whom the world is so much indebted, has tried in vain to communicate the small-pox by inoculation to persons who were vaccinated in 1796; and the same attempts have been made by other persons, with a similar result, on different people at various periods from the time of their vaccination. It is not hereby meant to be denied that small-pox has occurred after vaccination: on the contrary, it has been admitted, and the Board, in its last Report to Parliament,* has stated, on a calculation made in France on a large scale, that though it has happened, yet that the instances of its occurrence, in proportion to the number vaccinated, are very few, being as 1 to 381,666, and that the appearance of the small-pox a second time in persons who have had that disorder from inoculation, is more frequent. The surgeons appointed to the nine stations of this establishment in the metropolis have assured the Board, that they have never seen any of the persons who had been vaccinated by them attacked with the small-pox; and it is well known, that to the few persons to whom the small-pox has occurred in its most virulent form, not a single instance can be produced of its proving fatal. If, therefore, vaccination does not entirely prevent, it mitigates and disarms a dreadful disorder of its mischief, which, in former times, occasioned the death of one person, at least, in ten of those who were attacked with it.

(By Order of the Board)

JAMES HERVEY, Register.

Leicester-square, July, 1813.

Deaths by Small-pox from the London Bills.

May 11,	.	.	13	June 29,	.	.	10
18,	.	.	8	July 6,	.	.	11
25,	.	.	7	13,	.	.	6
June 1,	.	.	5	20,	.	.	15
8,	.	.	9	27,	.	.	12
15,	.	.	10	August 3,	.	.	38
22,	.	.	5				

* Printed by order of the House of Commons, May 1813.

Community of Associated Apothecaries and Surgeon-Apothecaries of England and Wales.—We have been favored, by W. T. Ward, Esq. secretary to the London Committee of Apothecaries and Surgeon-Apothecaries, with the interesting intelligence, that the above Committee, “having most assiduously sought and maturely considered every information they could collect, have agreed on and arranged certain *Resolutions*, which in their judgment appear best calculated to form the basis of a new Bill to be introduced into Parliament during the next session.” These Resolutions, we are further informed, will be printed, and addressed to every corresponding member of the District Committees, by the third week in September; and, availing ourselves of this circumstance, we shall give them in the next number of this Journal. The publication of this intelligence affords the Committee the opportunity of respectfully requesting those gentlemen who have received, or promised subscriptions, to transmit to the treasurers all arrears, previous to the publication of the statement of the Funds, which will accompany the Resolutions.

A foul and wicked report has been circulated, that the plague actually existed in Wapping. This, however, has been fully disproved by the testimony of a medical gentleman, and the minister of the parish. Though we have at present escaped the visitation of this direful pestilence, and proper measures have been adopted to secure us from it, yet we ought not to rely too much upon the efficacy of our quarantine laws. It is true that a *lazaretto* is established off Ryde (Isle of Wight), and that persons having had communication with or coming from Malta are compelled to perform quarantine; and it is also true that some individuals have evaded the law on that head. With the plague raging so near us as at Malta, whilst so many of our countrymen are on that station, we should not consider ourselves as being fully secure; we should rather avail ourselves of the opportunity of obtaining all information upon the subject, that we may be prepared for the enemy, should he ever visit us. We hope some of our correspondents in the army or navy will shortly favor us with an account of the progress and effects of this fatal disease at Malta, as well as of the remedies employed for its extinction.

Mr. Singer has recently discovered that ammonia is spontaneously generated in some cases of electro-chemical decomposition, where nitrogen and hydrogen are slowly separated from nitric acid and water. The gradual evolution of its elements is essential in these experiments to the formation of the ammonia, but its appearance is distinct and satisfactory, and results from a very simple arrangement. Mr. Singer is extending his experiments on the subject, which is highly interesting from its connection with the general phenomena of voltaic decomposition. The only instance of the spontaneous formation of ammonia by art with which we were previously acquainted, is that furnished by Mr. W. Higgins, who produced it by the action of granulated tin on dilute nitric acid.

Sir Everard Home has in the press a course of Lectures on Comparative Anatomy, delivered by him at the College of Surgeons. The

The arrangement is intended to follow that of the Hunterian Museum; and will furnish an elaborate commentary on that admirable and unique collection.

Mr. Hodgson's Treatise on the Diseases of Arteries and Veins, comprising the Pathology and Treatment of Aneurisms and Wounded Arteries, will be published in October, in one volume octavo, illustrated by a series of engravings in quarto.

Trinity College, Dublin.—Lectures upon Anatomy, Physiology, and Surgery, by James Macartney, M.D. F.R.S. M.R.I.A. Professor of Anatomy and Surgery in the University, and late Lecturer upon Comparative Anatomy and Physiology, at St. Bartholomew's Hospital, London. These Lectures will be divided into three courses: 1. A preliminary one of general Physiology, which will be open to the public. 2. A strict course of Anatomy and Physiology, as applicable to medical science. 3. A course of Surgical Anatomy and Operative Surgery.

The Lectures will commence on the first Monday in November, and terminate at the end of the following April. Demonstrations will be given daily in the Dissecting-room, by Mr. Cross, member of the Royal College of Surgeons in London.

Dr. Merriman, physician-accoucheur to the Middlesex Hospital and the Westminster General Dispensary, will begin his course of Lectures on Midwifery and the Diseases of Women and Children, on Monday, October 11, at half past ten o'clock. The Lectures are read daily at the Middlesex Hospital. Students when properly qualified will be provided with patients to attend in labour.

Dr. Clarke and Mr. Clarke will begin their winter Course of Lectures on Midwifery and the Diseases of Women and Children on Monday, October 4th. The Lectures are read at the house of Mr. Clarke, No. 10, Upper John-street, Golden-square, from a quarter past ten o'clock till a quarter past eleven, for the convenience of students attending the hospitals.

Theatre of Anatomy, Burtlett's-court, Holborn.—Mr. John Taunton, F.A.S. Member of the Royal College of Surgeons of London, Surgeon to the City and Finsbury Dispensaries, City of London Truss Society, &c. will commence his autumnal Course of Lectures on Anatomy, Physiology, Pathology, and Surgery, on Saturday, October the 2d, 1813, at eight o'clock in the evening precisely, and they will be continued every Tuesday, Thursday, and Saturday, at the same hour.

In this Course of Lectures it is proposed to take a comprehensive view of the structure and economy of the living body, and to consider the causes, symptoms, nature, and treatment of surgical diseases, with the mode of performing the different surgical operations; forming a complete course of anatomical and physiological instruction for the medical or surgical student, the artist, the professional or private gentleman.

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An ample field for professional edification will be afforded by the opportunity which pupils may have of attending the clinical and other practice of both the City and Finsbury Dispensaries.

London Hospital.—Dr. Buxton will commence his autumnal Course of Lectures on the Practice of Medicine, on Monday, October the 4th.

Dr. Clough, Physician-Accoucheur to the St. Mary-le-bone General Dispensary, and Endeavour Society, will commence his autumnal Course of Lectures on the Science and Practice of Midwifery, including the Diseases of Women and Children, as connected therewith, early in October next, at 68, Berner's-street, in the morning at half-past ten, and in the evening at seven; notice of which will be announced in most of the daily papers. Students, when properly qualified, will be amply provided with labours to attend in rotation, and their views forwarded by weekly examinations.

Mr. Carpue's Course of Lectures on Anatomy and Surgery commences on the 1st of October. For particulars inquire at his house in Dean-street, Soho.

Mr. Moor, Surgeon-Dentist to her Royal Highness the Duchess of York, will commence a Course of Lectures on the Structure and Diseases of the Teeth, on the 4th of November, in which will be explained the complete Practice of the Dentist. Further particulars may be known at his house, No. 6, Palsgrave-place, Temple.

Dr. Roget will commence his autumnal Course of Lectures on the Practice of Physic, at the Theatre of Anatomy, Great Windmill-street, on the first Monday in October.

Dr. Adams's autumnal Course of Lectures will commence at his house in Hatton Garden, on the first Tuesday in October, at twelve o'clock precisely.

Dr. Clutterbuck will begin his autumn Courses of Lectures on the Theory and Practice of Physic, Materia Medica, and Chemistry, on Monday, October the 4th, at ten o'clock in the morning.

Theatre of Anatomy, Blenheim-street, Great Marlborough-street.—The autumnal Course of Lectures on Anatomy, Physiology, and Surgery, will be commenced on Friday, the 1st of October, at two o'clock, by Mr. Brookes. Anatomical Conversations will be held weekly. Spacious apartments, thoroughly ventilated, and replete with every convenience, are open all the morning for the purposes of dissecting and injecting, where Mr. Brookes attends to direct the students, and demonstrate the various parts as they appear on dissection.

Dr. Ramsbotham will commence his Lectures on the Science and Practice of Midwifery, on Monday, October 4th, at half-past five in the evening. Pupils have the advantage of a valuable and well-selected museum.

METEO.

METEOROLOGICAL TABLE.

From July 25, to August 25, 1813.

D.	Therm.				Barom.	Hygrom.				Winds.	Atmos. Variation.
						Dry.—Damp.					
26	60	66	58	29 ⁶	29 ⁸	10	12	7	W..	F.. R... F..	
27	63	69	60	29 ⁹	30	10	13	1	W.	F.. R.. F..	
28	63	76	64	30 ²	—	20	—	—	NW.	F...	
29	64	76	64	30 ⁸	2	15	30	22	S.E.	F... — —	
30	64	79	76	30 ¹	29 ⁹	15	30	25	S.SW.	F.... — —	
31	66	73	68	30	30 ¹	22	24	28	NW.	F... F.. — ... C.	
1	64	70	67	30 ¹	—	20	—	19	W..	F. C.. F.	
2	63	70	64	30	29 ⁹	15	20	15	W.	R. C. F..	
3	63	69	63	29 ⁹	8	10	26	13	W...	R. F.. B. F..	
4	65	67	63	29 ⁹	—	13	35	22	W...	F... F.. F...	
5	61	65	58	29 ⁷	5	16	23	8	W...	R... — .. F. R...	
6	59	69	58	29 ⁶	9	6	11	10	NW..	F... — ... R.	
7	58	70	67	29 ⁹	30	11	33	30	NW.	F... — —	
8	64	69	65	30	—	19	20	10	W.	C.. F. R..	
9	60	69	65	30	30 ²	12	30	22	N..	F.. — —	
10	61	68	65	30 ²	—	16	21	—	N.	F... — .. R. F...	
11	65	71	69	30 ³	1	16	25	20	SW.	C.. F... C.. F...	
12	65	76	70	30	—	19	45	40	W.	F.... — —	
13	65	70	63	30 ¹	2	19	40	30	N..	C.. R.. F... —	
14	59	68	63	30 ²	30	21	35	22	W.	F... C.. F..	
15	63	70	64	29 ⁹	—	10	46	35	NW..	C.. F... — ...	
16	62	66	62	29 ⁹	—	24	37	22	N..	C. — .. F. —	
17	60	68	62	29 ⁹	—	22	30	22	NW..	C... F.. C... F...	
18	60	70	64	29 ⁹	30	14	26	20	W..N.	F.. — .. R..	
19	58	68	63	30 ¹	3	20	45	37	N..	F... — —	
20	61	68	59	30 ²	—	27	43	38	NW.	F.... — ... C.. F...	
21	55	63	57	30 ²	1	28	43	35	NW..	F... C.. F...	
22	57	60	53	29 ⁹	8	27	20	21	NW..	F.. R.. — ..	
23	55	64	59	30	30 ²	19	40	28	N..	F.. F.. — ...	
24	57	64	62	30 ³	—	21	36	30	N.NE.	F... — —	
25	58	65	60	30 ³	—	25	35	30	E.NE.	F... — —	

Quantity of rain from the 25th of July to the 25th of August, $\frac{52}{100}$ of an inch.

Serenity and mildness of temperature, and a dry atmosphere, have generally characterised this interval; but to this there has been some exceptions. On the 26th of July, there was a storm of thunder with heavy showers; the 21st of August was unpleasantly cold, morning and evening; and the 22d had a wintery aspect throughout, with stormy showers from the N.W.

The range of the thermometer and barometer has been unusually great in this interval. On the 30th of July, the temperature, at two o'clock P.M. was 79°; on the 22d of August, at two o'clock P.M. it was 60°: the heat has been below the standard of this season of the year. The barometer has varied also very considerably, and sometimes very suddenly. On the 5th of August in the evening, wind blowing fresh from W. the mercury was 29 $\frac{1}{10}$; on the 24th in the morning, wind nearly calm from N. 30 $\frac{1}{10}$. The wintery day on the 22d, barometer in the evening 29 $\frac{1}{10}$; wind blowing gently from N.W. On the morning of the 24th, the mercury had risen to 30 $\frac{1}{10}$, wind due N. with a brilliantly clear atmosphere, continuing to the evening of the 25th, when the whole visual hemisphere from London was obscured, by congregated cirro-cumulus.

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A most seasonable and advantageous absence of atmospherical humidity has marked this period; the quantity of rain being little more than half an inch. It will be seen, by turning back to our Journal for September 1812, page 255, that the quantity of rain which fell from the 26th of July to the 26th of August of that year, was two inches and $\frac{10}{16}$, nearly four-fifths more than has fallen in the present August. From the 26th of July to the 26th of August 1812, it rained on fourteen days, and in large quantity on each day. From the 25th of July to the 25th of August 1813, it has rained eleven days, but most frequently in light and transient showers.

According to our own observation, the disease of the season, *Cholera*, has prevailed much more extensively in the present than in the autumn of 1812, showing, as far as this fact goes, that the production of this peculiar state of morbid action in the *prima via*, is not promoted by a humid atmosphere. Some cases of *Rubeola*, neither of the mildest or most severe form, have occurred; as have some of *Varicella*.

Prince's Street, Cavendish Square.

MONTHLY CATALOGUE OF MEDICAL BOOKS.

OBSERVATIONS on Indigestion, in which is satisfactorily shown the Efficacy of *Ipecacuan*, relieving this, as well as its connected train of Complaints, peculiar to the Decline of Life. By Mr. Daubenton. The fourth edition, with additional notes and observations. By Alex. P. Buchan, M.D. 12mo. boards.—Callow.

Appendix to Observations on the Contracted Intestinum Rectum; containing some additional Facts relative to that Complaint, with several Cases, and two Engravings. By W. White. 12mo.—Callow.

A Familiar Treatise on Cutaneous Diseases, exhibiting a popular View of their respective Symptoms, detailing the Limits of secure Self-treatment, and illustrating the perilous Abuse of Indiscriminate Remedies. By John Wilson. 8vo.—Wilkie and Robinson.

NOTICES TO CORRESPONDENTS.

Dr. Spark's letter arrived too late for insertion this month.—A very important paper upon Medical Reform, signed "a disinterested Physician," was only deferred that it might appear entire: it will commence the next Number, and we would especially invite our readers' attention to it.—Mr. Hemingway requests Obstetricus to peruse the 355th page of Burn's Principles of Midwifery, when he will find the diagnostic symptoms of puerperal convulsions to accord very much with Mr. H.'s ideas.—A professional Correspondent wishes to be informed whether he is to understand that the seven-teen gallons of fluid which were extracted by Mr. Chevalier in his singular case of Ovarial Dropsy, related in the last Number of this Journal, were wine or beer gallons?

THE
Medical and Physical Journal.

4 OF VOL. XXX.] OCTOBER, 1813. [NO. 176.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

TWO serious attempts have now been made within a short period, to regulate the profession of physic by means of legislative enactments; and it is matter of notoriety, that the associated body whose bill for this purpose has been so lately withdrawn from the table of the House of Commons, have it in contemplation again to introduce the same in an amended form, as soon as parliament shall be re-assembled. The activity hitherto manifested by this body in the pursuit of their favorite scheme, and their well-known habits of industry and application, leave us little room to doubt of their object being pursued with ardour and perseverance.

Under such circumstances, it is surely full time to inquire whether this subject is so thoroughly investigated or understood, as to be prepared for such final appeal; and also, how far they who have come forward to point out to the legislature the necessary amendments are qualified for the task they have undertaken,—or rather, as it is a much more material consideration, how far the measures proposed by them are likely to answer the ends designed, or are worthy of being embodied into our legal code.

The arrangement of a medical profession on principles which shall ensure to the public a sufficiency of duly qualified practitioners, who shall be able to accommodate themselves to the various classes and conditions of the community, so as to afford to each the best assistance that the present state of medical science will admit of, must be deemed by all a matter of grave and weighty importance. In its accomplishment all ranks of society are interested, and the means of attaining it deserve the maturest consideration. To no being in society, indeed, whatever his place in the scale of social order, intellect, or moral feeling, can this subject be a matter of indifference. It affects equally the peasant and the prince, the philosopher and the clown; the sensualist, whose thoughts or affections range not beyond the boundaries of his own gratifications, and the philanthropist, whose bosom glows with the generous anticipation of alleviating human misery. All are equally concerned in the establishing a

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more perfect and efficient profession of physic, and should equally rejoice in every rational expectation of rescuing the wretched victims of disease from the venal and rapacious grasp of ignorance and quackery.

These observations I have made to show, first, that some such attempt at illustration as that which I am about to enter on, is become actually necessary; and, secondly, that the subject thereof is one of no ordinary interest or importance.

Unwilling, however, to trespass unnecessarily on your pages, I shall wave all further preface, and proceed at once to the object I have chiefly in view; namely, to illustrate, in the first place, as far as I am able, the present condition of the medical profession in all its departments of education and practice; secondly, to deduce from the history of its progress, and the natural tendencies evinced by it, what those essential constituents are of which an efficient and well-qualified profession ought to consist; and lastly, to point out the means most likely to assimilate the former to the latter state, so as, without trenching on existing rights, or affording any just grounds for complaints of individual injustice, to ensure to the public competent medical assistance, and to the professors of the art a reasonable hope of adequate remuneration.

In pursuance of this purpose, I shall now proceed to specify the several kinds of medical practitioners who are to be found at the present day dispersed throughout the British islands, the mere enumeration of whom is calculated to throw some light on the subject I am treating of, and to prepare us in some degree for judging of their relative merits and advantages.

The following list conveys a fair and accurate representation of them, and will afford much interesting matter for reflection.

Doctors of Physic of Oxford and Cambridge.—To neither of these universities does any efficient school of physic belong. They confer medical degrees, however; but rather as being arrived at in the regular course of academic discipline, and attained by a certain observance of acts and terms, than as merited by any full or perfect qualifications in the art of curing diseases: yet these graduates possess privileges such as no other medical men enjoy, and are entitled to demand admission as fellows of the London College of Physicians, without undergoing the scrutiny of an examination, to which all other candidates are subjected.

Doctors of Physic of Edinburgh.—A university which furnishes a complete course of medical instruction, and whose degree is only obtained by resident study and examination.

Doctors

Doctors of Physic of Glasgow.—Here, too, a complete school of physic is established; and similar qualifications required for obtaining a degree, as are insisted on at Edinburgh.

Doctors of Physic of Aberdeen and St. Andrew's.—These universities possess no competent schools of physic. Their degree is obtained without either resident study or examination, and on the sole ground of private certificates. The means by which these certificates are procured, the extent to which the system has arrived, and the gross venality and shameless corruption which characterise it, shall be the subject of further discussion by and by.

Doctors of Physic of Dublin.—This university, like those of Oxford and Cambridge, grants degrees in physic, considered rather as a branch of liberal science, than as a practical art. They originated at a time when no complete school of physic belonged to it; they are issued on the foundation of the university, and are rather to be received as testimonies of regular literary education, than of medical attainments.

It differs, however, from the English universities, in having now attached to it a school of physic complete in all its parts; for the deficiencies of the school of physic, which would have remained unheeded by the heads of the university, whose attention is otherwise directed, have been supplied by the liberality and public spirit of an individual; and to the late Sir Patrick Dunn, is the Dublin university indebted for having endowed several professorships, and obtained an act of parliament by which the whole is incorporated into one school of physic, which now affords a complete system of medical instruction.

On the foundation of this institution, degrees in physic are also granted, which are analogous to those of Edinburgh and Glasgow. They are not confined to the literary students of the university, and they require a prescribed course of study, and previous examination, in order to obtain them.

Doctors of Physic of Foreign Universities.

Surgeons of each of the Royal Colleges of England, Ireland, and Scotland;—all differently circumstanced with respect to their connection with pharmacy, and the privilege of combining it with their other pursuits.

The Scottish Surgeons are examined in pharmacy, and are even required to produce, on examination, specimens of compound medicines prepared by themselves, as proofs of their practical knowledge of this department.

The English Surgeons are allowed to combine pharmacy
M m 2 with

with their more appropriate pursuits; but they are not obliged to prove before the College their pharmaceutical attainments.

The Irish Surgeons are altogether prohibited from combining pharmacy with their other practice, the penalty of expulsion from their College being attached to the offence.

On each of these I shall by and by have occasion to offer some further remarks; they are at present noticed only as forming part of the medical community of these kingdoms.

The Apothecaries of each Kingdom;—an appendage to the profession, whose original destination was to dispense the prescriptions of the physician, for which a pharmaceutical education abundantly qualified them, but by no means to practise either in physic or surgery, for which they were utterly unprepared, unless it be alleged that these branches are capable of being intuitively acquired, and without opportunities either for study or observation. They have, however, notwithstanding the disadvantages of defective education, been of late years brought forward by the public as general practitioners; and a due attention to this fact, will be found to afford some views of the medical profession which are in direct opposition to the opinions most generally received. The department of pharmacy has never, that I know of, been regularly legitimatised in Scotland, having never grown into so much importance there as to have acquired a separate constitution. Neither have the mere practitioners in pharmacy throughout Scotland deviated from their proper line of business, or assumed the practice of either physic or surgery. And the fact seems to be, that the public necessities, by which alone they could be so called on, did not require them, being already supplied by a much better general practitioner, namely, the surgeon, allowed by the good sense of his corporation to combine pharmacy with his more immediate pursuits, and thus qualify himself for a department which would otherwise have been supplied from a very inferior order.

Both in England and Ireland pharmacy has been placed under the superintendence of distinct corporations, and principally by reason of the importance attached to this body in consequence of their having insensibly become elevated to the rank of medical practitioners. It does not appear, however, that their chartered rights extend beyond the department of pharmacy, nor have they heretofore so far presumed on their popularity, as to make any attempts at legalising their medical or surgical practice. An endeavor of this kind, however, seems to form a very prominent feature of their intended bill; and it is evident that they now entertain very sanguine

sanguine hopes of being able, by making common cause with the surgeon-apothecaries, to establish themselves in the possession of certain legal rights which neither physic nor surgery have ever enjoyed.

The corporations of England and Ireland are differently constituted, and are invested with very different degrees of authority: the English company having no power to control the practice of pharmacy by men not of their body; while the Irish charter empowers the body incorporated thereby, to prevent the practice of pharmacy, even by surgeons and physicians.

The remaining medical practitioners may be disposed of by a brief notice; they are

The *Apothecaries*—not attached to any corporation, but nevertheless largely engaged in the practice both of physic and surgery.

The *Druggists*—dispensing medicines, and also prescribing; and, finally,

The *Grocers*—first commencing by selling drugs by retail, next dispensing prescriptions, then practising the minor operations of surgery, and also prescribing; and, finally, retiring from business with an independence acquired in the course of a very few years, and not unfrequently aspiring to the elevation of a medical degree. And this course, with the exception perhaps of the first step, gives pretty accurately the progress of a large number of those to whom Aberdeen or St. Andrew's degrees in physic are objects of ambition.

Such is the present state of the medical profession in these kingdoms, and of such various and ill-assorted members does it consist. It cannot be that so many varieties are necessary for so simple a purpose as supplying the community with suitable assistance when visited by diseases; and it naturally becomes our next object to inquire which of these are indispensably necessary, and which are to be considered as unqualified, superfluous, or intrusive. To this end it is necessary, first, to take a brief historical survey of the rise and progress of each department, and to show both the order in which they have succeeded to each other, and the causes to which such successive advancement was most probably attributable.

The first medical practitioners recognised by the state, were the physicians. They prescribed for diseases, and the apothecaries dispensed their prescriptions. These latter were, no doubt, soon taught "by doctors' bills to play the doctor's part," and prescribed, in their turn, for those inferior ranks who could not afford the doctor's fee, and who were

were consequently relinquished to them without jealousy or reluctance.

The first serious encroachments on the practice of the physician took place when surgery became advanced to its just rank as a liberal profession. Surgeons were then consulted in medical diseases, and this union of both professions in the same individual, giving them a decided advantage over their competitors in public favor, they consequently engrossed a large share of medical practice. And the principle hereby inculcated is still further confirmed and supported by the history of the surgeons themselves; for in exact proportion as they have yielded to or disregarded it, has their own establishment in general practice been confirmed or shaken. This is particularly conspicuous in the history of the Irish College of Surgeons, the members of which complain more of the encroachments of the apothecaries, than perhaps any other surgeons. And with reason, I believe, as to the fact; for this clearly is, that the establishment of a Royal College of Surgeons in Ireland has been followed rather by an increase than a diminution in the number of practising apothecaries. The reverse of this holds true with regard to the English surgeons; for, since they have begun to supply the public with competent general practitioners, combining in their own persons the several departments of physic, surgery, midwifery, and pharmacy, the race of practising apothecaries has been manifestly declining, and will, I doubt not, in due time, become extinct.

The Scottish surgeons seem to have so clearly discerned the nature of the public necessities, and to have so effectually provided for them, that with them the practising apothecary is unknown; and the surgeons and physicians, by coalescing and combining in various ways the several departments, either by superadding them to each other in the same person, or by co-partnerships in business, have supplied their country with medical and surgical aid, such as cannot be objected to.

It is much to be lamented, that the Dublin College of Surgeons have not seen the propriety of emulating the good sense and sound policy of the other surgical corporations, but have allowed themselves to be influenced by vain fancies respecting an imaginary necessity for preserving a perfect distinctness between surgery and pharmacy, in practice at least; that they have indulged in senseless aspirations after an ideal elevation, or equality of rank with the physician, whereby they have been led into the error of opposing the union of pharmacy with their own profession, and have thus directly opened a door for the further intrusion of those who

did not disdain to combine every branch in their own persons; they have thus given an impulse to the apothecaries, which has promoted their advancement beyond what any other means could have effected. These two were gradually becoming better educated, and more conversant with general practice; they were consequently more confided in, and were entrusted with the exclusive care of all slighter ailments; while by preceding the surgeon and physician in the treatment of the more formidable diseases, they became associated with them, as it were, in the attendance, though still at a respectful distance, and thus had their information and acquaintance with diseases still further increased, and, in short, became themselves much better practitioners. They still, however, professed only the business of dispensing medicines, and all the corporate rights they acquired were limited to this one occupation. They were not yet, even in the vague opinions of the public, set down as legitimate practitioners, neither did they arrogate to themselves any right of being so considered.

Throughout the whole of this progress we may clearly trace one particular tendency uniformly operating, namely, that of the public to prefer the practitioner in whom the several departments were most completely combined; a tendency so strong, as to counteract the disadvantages of defective education in these latter, and to give the apparent inconsistency of those being most employed in the practice of physic, who were least qualified for undertaking it.

The first attempt to profit by this experience, and to form a practitioner who should unite in his own person every department with a fair presumption that he was duly qualified in all, was on the part of the London College of Surgeons; and in giving to the country the surgeon-apothecary, familiarised to general practice by *apprenticeship*, grounded in a knowledge of the human constitution, and of diseases in general, by attendance on lectures, dissections, and hospital practice, and proved as to his actual attainments by examination, they have done more extensive and essential service to the community than all the other medical corporations united. Perhaps I should associate with them in this praise the Scottish College of Surgeons also, who seem to have been influenced by the same liberal and enlightened policy, and who may even have preceded therein the London College, although my information on the subject does not allow me to pronounce determinately on this point.

It is in contemplating the rise and progress, the excellence and efficiency of this practitioner, the surgeon-apothecary,
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that we shall acquire the most correct ideas of what the natural tendencies of the medical profession incline to ; and the observations thus made, and the inferences they give rise to, will with considerable certainty instruct us in the best means for making the medical profession what it should be, and for rendering it at once useful and respectable.

Let us now review once more the several departments of the profession, and investigate a little more closely the peculiar circumstances attendant upon each, in order to ascertain, as far as is practicable, the real utility of each, the necessity for its continuance, and the natural extent in which this necessity is likely to maintain it.

The physician, however highly qualified or groundedly learned, it is obvious, can never be considered as a practitioner suited for general practice. In every competition with the inferior classes, he is sure to give way, being superseded by the surgeon, who combines medical with surgical practice, and still more effectually by the general practitioner, in whom every branch is united. It is perfectly immaterial, therefore, what his real qualifications are, how great his superiority, or how vast his merits. He is not calculated for standing in competition with those whom the public, urged by an irresistible impulse, seems determined to prefer, and must therefore yield to a necessity which may be deplored, but cannot be resisted.

The effect of this, however, on the profession of physic, would have been productive of but little evil, if other causes did not concur to degrade and overwhelm this ill-fated department. Were supply of physicians derived from any single source, or even from several sources agreeing in their great leading characters, the only consequence of this declining popularity of the physicians, would have been a decrease of their numbers ; they would still have retained the first place in rank and consequence, and finding in due time their natural level as to numbers, would have continued respected and respectable, without suffering individually those neglects and privations, by which such numbers of highly-accomplished and meritorious members of this body have of late years been consigned to penury and obscurity.

The causes of this manifest degradation, and of the severe and trying hardships to which it has given rise, it is almost fruitless now to unfold ; for, as far at least as regards the present race of sufferers, they hardly admit of remedy. Some eventual good may, however, attend the development of them ; and at all events the cause of truth is likely to be benefited by such inquiry. May they not be distinctly traced to the numerous and discordant sources from whence the
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the physicians have been derived—to the want of suitable medical education being afforded by those seminaries, to whose graduates notwithstanding the greatest privileges are by law attached—and, finally, to the corrupt practice of other universities, in granting degrees on private testimonials of qualification only, which testimonials are too often obtained by private favor or gross venality, and granted to individuals whom no university ought consistently with a due regard to its own reputation to acknowledge?

The excess to which this latter system of doctor-making is carried, or the systematic corruption by which certificates are obtained, is far from being generally imagined; and I speak from certain knowledge of the facts, when I allege, that whoever can offer a colorable pretext for making an application to Aberdeen or St. Andrew's, need not be debarred from his degree by any difficulty in finding physicians ready and willing to grant the necessary certificates, provided he is prepared to make the pecuniary recompense required. And the trade seems to be both prosperous and lucrative, for a recently-made doctor of this class, whose university fees at St. Andrew's amounted only to twenty-four pounds, had his total expenses increased by such contingencies as I am alluding to, to one hundred and fifty.

It is of late only that such gross venality and infamous corruption in the profession of physic have come to my knowledge. I have oftentimes, indeed, heard such allegations advanced, but contemned them as groundless calumnies. I have now, however, had but too good proof for asserting, that the granting of certificates to candidates for Aberdeen or St. Andrew's degrees in physic, is become a matter of regular barter and trade; and that a sufficiency of money is all that is required to advance any who have ever dabbled in medicine to the disgraced and unenviable rank of M.D.

I have always been aware that such certificates were too often the compulsory tribute of the needy physician to the more popular apothecary, whose favor he found it essential to cultivate, and whose resentments he dreaded, rather than the freewill offering and unbiassed declaration of an independent mind. And I have even had occasion to know instances wherein men the most honorable and upright, have in unguarded hours been betrayed or seduced into granting certificates of qualification which were afterwards made the grounds of application for medical degrees. But until the fact of such certificates being granted by physicians to men of whom they could know nothing, and to whose persons they were strangers, until brought together in the course of such negociation, had flashed conviction on my mind, of the

reality of such enormous conduct, I could not have believed that such practices had any existence.

It may here be reasonably asked, if the profession of physic is so unproductive and ineligible, why is admission so sedulously sought for into it. I merely allege the fact, and confess myself not at all anxious to divine the motives; they lie on the surface, and will readily present themselves to those who may think them worth seeking for.

Who are they who thus seek to dignify their calling, by the assumption of medical honors? Men who have risen from the lowest ranks of medical practice, who have commenced with sweeping the shop and carrying out phials, or even with dealing out groceries by retail, and who progressively availing themselves of the facility by which each advance can be effected, have gone on successively through the several gradations of dispensing and prescribing, until a beneficial treaty for their lucrative business with some junior in the trade releases them from the drudgery which they now learn to contemn, and makes a medical degree the only attainable sanction under which they can continue to levy contributions on the public.

I would by no means be understood as implying that every member introduced to the profession by such degree is necessarily of this character; I know well, that as many of the brightest ornaments of our senate have issued from the rotten borough, so has the profession of physic been occasionally indebted to our rotten universities for introducing into it men of sterling talents and undoubted acquirements. But no amount of such advantages can possibly compensate for the great and glaring evil of throwing open the profession to such incompetent pretenders as I have been describing; nor can the profession itself do otherwise than descend in the scale both of usefulness and respectability, so long as this much-abused privilege is enjoyed and exercised by these prostituted bodies.

The evil, too, is almost without counterbalance; for, were these creditable practitioners who are occasionally supplied with degrees from Aberdeen or St. Andrew's, even more numerous and valuable than they really are, it is not to be overlooked, that the claim of the universities to the merit of bringing forward their talents or abilities, stands low indeed. Their services were given fully to the public before such medical degrees were obtained; and here the analogy with our senate totally fails: for, whatever force such an argument may possess in defence of a corrupt system of representation, it can assuredly have none when applied to the corrupt manufacture of physicians. What, then, is the benefit derived
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from granting medical degrees on private certificates only? Does it extend a single point beyond the idle gratification of the individual, the indulgence of a vain pride, if not of some more hateful feeling, the pecuniary advantage of the certifying physicians, and the payment of certain insignificant fees to the funds of the universities? And are such considerations worthy for a moment of being deemed a sufficient excuse for continuing a system by which a liberal and truly-dignified profession is so abused and degraded?

A further cause of the degradation of physic will be found in the ill-judged proceedings of those bodies who have existed only for the purpose of protecting and advancing it; for, judging by false principles, and overlooking the uncontrollable tendencies of the public mind, they have almost uniformly by their procedures increased the difficulties of regular admission to their own body, have required harassing and vexatious examinations of men whose qualifications had already been duly attested after sufficient ordeals, have called for pecuniary fines, oppressive in their operation, and not required for nor appropriated to any single valuable purpose; in fine, have tended most powerfully, by diminishing the number of regularly-educated practitioners in physic, to leave a vacuum which the unqualified were sure to supply. These general reflections require that further facts should be adduced in support of them; and the most forcible and impressive way of bringing such forward, will be to present them in contrast with the corresponding facts derived from the history of other medical corporations.

Let us compare, for instance, the conduct of the two medical corporations of the metropolis, in some of the most essential articles of their internal government. The College of Physicians of London examine candidates for country practice, who may or may not be graduate physicians; and they elect them extra licentiates of the Royal College.

It may be observed by the way, that, according to high legal authority, their legal control does not in reality extend to the situations for which they affect to license these practitioners; nor do they confer on such any privileges by their license, beyond what was previously possessed. Having no power then to protect such practitioners in any respect from the encroachments of irregulars, it may fairly be asked to what end do the graduates of regular universities, whose degrees have been obtained after resident study and examination, submit to a further examination, and the exaction of fees by this body? For myself I answer, that I can see no one sufficient motive for such compliances; and that I conceive

ceive the extra license of this College to be to all intents and purposes utterly valueless.

But to the licentiates of the College they grant a different license, empowering such to practise in the city of London, and within seven miles around, being the limits to which their jurisdiction really extends, on their undergoing a different and more strict examination, and on paying other and more considerable fees. Now to this distinction I most decidedly object, as not being defensible upon any sound principle. Why practitioners should be required for town practice, superior to those to whom the country population is committed, I own I do not fully comprehend. The idea is by far too courtly for my rusticated mind to entertain or imagine; nor can I, for this greater caution respecting town practitioners, and more rigid examination of them, discern any motive, but a regard to private interests, a jealousy of encroachment, and a disposition to limit the number of competitors.

In all these respects, the conduct of the London College of Surgeons may be contrasted with that of the Physicians, much to the credit of the former. The surgeons examine generally, and qualify with their fullest license any young man who has undergone the necessary *apprenticeship, and attended the necessary lectures, dissections, and hospital practice*. If destined to practise in the country or provincial towns, his fees are reduced on the principles that he thus foregoes those peculiar advantages which closer attachment to the corporate body, and eligibility to its offices, would in town practice impart to him. They leave him too at liberty to practise pharmacy, and thus enable him to enter into successful competition with those practitioners by whom in country life he is most likely to be opposed.

Should a practitioner of this class wish to advance his fortunes in city practice, and be induced by a laudable ambition, or any other motive, to adventure therein, he meets with no mean or pitiful jealousies to oppose his intentions, but is at once received without further trials, and is only required to pay to the funds of his College his additional fees; a measure perfectly equitable and proper, and which is fully justified by the obvious propriety of his contributing more largely to the maintenance of that establishment by which he is so likely to benefit, and to whose offices he may be elected, than when the benefits imparted to him were less sensibly experienced, and the election to office impracticable.

It ought further to be mentioned, that a bye-law of the College excludes from its offices all such members as are
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actually engaged in the practice of pharmacy ; but, with a liberality which cannot be too much commended or admired, they have abstained from rendering the law retrospective, nor can it affect any member who, though he may have practised pharmacy, has relinquished it in order to attain to official distinction in his corporation. These traits of liberal sentiment and sound policy in the constitution and government of this admirable institution, entitle it in my mind to the highest respect ; and if we regard the extensive advantages that have resulted to society from the establishment of that excellent species of practitioner the *surgeon-apothecary*, and reflect on the short period within which the activity of this College has been so beneficially employed in supplying to the public what they stood so much in need of, we can hardly, I think, rate the merits of this body too highly.

It would be invidious to compare them further with the College of Physicians, or to dwell longer on the less judicious course which this latter body has thought proper to pursue. That they have done so with pure and upright intentions, though on mistaken principles, I am willing to allow ; nor do I here expose the shallowness of their policy, or the injurious tendency of their procedures, with any other view than to lead to their correction. What powers should be exercised by, and what authority invested in, this body, I shall by and by have occasion to treat of : at present it is necessary for me to proceed in the review of the several classes and corporations which remain to be noticed.

Previous to the supply of practitioners for general practice by the College of Surgeons, according to the wise and efficient system on which they have acted, the apothecaries were in the exclusive possession of this extensive field ; and, however ignorant and unqualified they originally were for undertaking its duties, there can be no doubt but that they have had diligence and good sense enough to supply many of their deficiencies by the assistance of the private teachers and public hospitals of the metropolis, and that they now remain a numerous and respectable body. Among them may, I doubt not, be found many individuals possessed both of learning and abilities, and who, by their association, would reflect credit on any College, whether of Surgeons or Physicians ; but while I acknowledge the services they have rendered to society, and willingly accord to them the merit of attaining considerable improvement, when under no obligation to effect this, save what moral principle and a laudable ambition imposed on them, we must not lose sight of the imperfections of the system which elevated them into practitioners,

practitioners, nor be blinded to its utter incompetency for ensuring to the public the due qualification of each individual candidate for practice who may come forward under its auspices.

No degree of individual merit can possibly atone for the general inferiority of this class of practitioners to that of the *surgeon-apothecaries*; nor should any false estimate of their supposed equality mislead us for a moment into sanctioning any system which should tend to give perpetuity to this body, by legalising their practice, or encouraging their increase. If left to the natural influence of time and of causes continually though silently operating, they will, I doubt not, in due course give way to their better qualified rivals; a change which has to a considerable degree already taken place, which is still in full progress, and which, if not interrupted by injudicious legislation, will assuredly establish the surgeon-apothecary eventually as the general practitioner all over the kingdom; and it will accomplish this without occasioning a single instance of individual injustice, or in any respect oppressing that body whom it is intended to displace. How such salutary change may be best promoted, so as neither to affect individual interests, nor hazard the retardation of the natural progress of events, must be further discussed when we come ultimately to speak of those amendments of the profession in which the aid of the legislature may be beneficially employed.

I come next to notice the medical corporations of each of our other metropolises; and it is the more necessary to display the peculiar attributes of each, as a knowledge thereof must greatly tend to facilitate that free and reciprocal intercourse which ought assuredly to exist between the several parts of the same empire.

The university of Dublin, as I before observed, grants degrees in physic on two foundations: the one that of their charter, which having been granted at a time when medical science was but in its infancy, does not make provision for the due information of the candidate. It is accessible only to the literary graduates or under-graduates of the university, or to those who may be admitted to degrees *ad eundem* in Trinity College, Dublin, by a *bene deceptit* from Oxford or Cambridge. They afford no sufficient proof, however, of a competent medical education or acquirements, and they do not, that I know of, confer any privileges beyond the precincts of the university.

The other medical degree which issues from Trinity College, Dublin, is attainable by candidates who are not literary graduates. It is conferred under the authority of an act of parliament,

parliament, by which Sir Patrick Dunn, himself a medical practitioner, was empowered to found, in the university of Dublin, a more perfect school of physic, and to endow out of his private property certain professorships that were previously deficient.

To the three medical professorships of the university he added three others, so as to complete the six of which all our principal schools of physic now almost uniformly consist. A course of study is required by this bill nearly similar to that which obtains in Edinburgh and Glasgow: a thesis is published, examinations held, and a degree granted, which, as far as any such instrument can convey the assurance, testifies to the public that the person possessing it has at least gone through a regular medical education. And while I am on this subject, it may not be amiss to observe that the language of a medical degree, the qualifications it vouches for, and the privileges it confers, have been made the subjects of much unmeaning ridicule, and their declarations egregiously misconceived, in consequence of a too literal acceptance of them.

The true extent and import of this instrument are so well explained by the *Senatus Academicus* of Edinburgh, in the reply given by them to Dr. Harrison in 1807, that I shall make no apology for introducing the extract in this place. The committee appointed by the *Senatus Academicus* to consider and report on Dr. Harrison's proposals, after some observations on the nature and tendency thereof, proceed to remark, that "they need not mention the origin, and the reasons of conferring degrees in physic, a practice which has been long followed in Europe, and of which the expediency and even necessity are now universally acknowledged. They beg leave, however, to observe, that it has never been intended to declare to the public, that the person upon whom a university confers a degree of Doctor of Physic, has acquired a complete knowledge of medicine; but to announce to the world in the most public manner, that he has been regularly educated, that he has studied during a university period all the branches of medicine, and that he has acquired such a stock of knowledge as in the opinion of competent judges qualifies him for entering upon the practice of physic."

After such an open and candid declaration, neither the quaintness nor turgescence of expression which may appear on the face of a medical degree, can reasonably subject it to either ridicule or reproach. It is possible that a more simple form of words might be devised, more accurately expressive of the degree of approbation due to the candidate; but it
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does not appear that the evil of the present form is of such magnitude to call for innovation in respect of it. The subject indeed is little worth discussing; but, as among other sarcastic and disingenuous reflections cast on this body by their rivals and opponents, with a view to depress them still lower by rendering them the objects of ridicule and contempt, this one has been not unfrequently resorted to, and with some effect on the light-minded and inconsiderate, I thought it not unmeet to place the matter in its proper light, and thus to vindicate the possessors of such degrees from the imputation of an arrogance which they are utter strangers to, and cannot feel.

The Dublin College of Physicians examines for licenses to practice in Dublin, any medical graduate of a university. Unlike the London College, however, which is obliged to admit to its association, without further trial, the doctors of Oxford and Cambridge, the College of Physicians of Dublin recognises no peculiar claim in the medical graduates of their own country, but examines indiscriminately all who come forward to require their license. They further demand the sum of fifty pounds as a fine on admission, to which amount it has been raised within a few years from five-and-twenty, not from any wants of the College for an extension of their funds, but on the alleged principle of increasing, by such increased expenditure of the candidate, the respectability of the profession. By what mode of inference such a conclusion was arrived at, or by what species of logic the reasonings which led to it were conducted or supported, I own myself too dull in intellect to be able to discover.

This College has never been called on to examine country practitioners, nor do I believe the expedient of granting extra licenses has yet occurred to them. There are some further circumstances, however, respecting this body, so illustrative of the general interests of the profession of physic, and so expressive of the spirit with which corporate powers are so prone to be exercised, that it cannot be a waste of time to expose these a little further.

The management of this corporation rests solely with the fellows, and does not extend to the licentiates. These fellows elect from among the licentiates as they think fit. Conceiving themselves, as they naturally did, to be placed at the head of their profession, and invested with such power of limiting their numbers, it was hardly to be expected that they would have the virtue to withstand the temptations to selfish and sinister proceedings thus offered to them, nor that they should not lend an ear to that specious but delusive reasoning, which whispered to them, that as holding the

the highest rank in the profession they must consequently be the most esteemed of medical practitioners, and that the amount of business and emoluments engrossed by them, was very likely to be in the inverse ratio of their numbers.

How far this affords a correct elucidation of their conduct in this particular, I shall not pretend to aver; but the fact is certain, that when Dr. Harrison first called the attention of the profession to its manifold grievances and abuses, the fellows of this body resident in Dublin, and exercising all its rights and privileges, were reduced to ten only.

At this period the licentiates of the College were between thirty and forty in number, and might constitute about one half of the practising physicians of the city, the remaining part consisting of graduate physicians of different universities, who for divers reasons had not become attached in any way to the College, but continued to practise independent of its sanction. And it is not a little curious to develop the motives by which so large a body of practitioners were withheld from incorporating themselves with the College by obtaining their license. Some of high minds felt averse to submitting themselves to the overbearing spirit by which this little conclave was obviously influenced; others dreaded the power which might be exercised over them at examinations by men whose obvious policy it was to narrow the profession, and exclude from its pale; others again were either unwilling or unable to pay the advanced fine of fifty pounds, more especially as they knew its destination was to be expended not on objects of science, but in drinking and carousing. The latter of these, indeed, or those who pleaded inability, the College most liberally offered to compromise with, by agreeing to accept half their demand in cash, and the remainder in approved bills at twelve months date. But I have not been able to learn that this generous tender was received with the gratitude it was so justly entitled to.

It is further worthy of remark, that although this College were empowered by their charter to fine all such physicians as should be found practising in the city without their license, these unlicensed men whom I have been noticing were left unmolested, and suffered to practise on an equal footing with the licentiates, who had yet been obliged to purchase their privilege by undergoing an examination, and paying the sum of fifty pounds.

Shortly after the period I have been adverting to, the unlicensed physicians of Dublin entered into an association with certain of the licentiates, for the purpose of procuring some amelioration in the management of the affairs of the

College, with regard to the examinations for licenses, and the fines demanded on obtaining them. Unsupported, however, in their endeavors, and despondent of success, this association, after several communications with the College, in which nothing definitive was determined on, became insensibly dissolved, some members being admitted to licenses unexamined, others consenting to undergo examination, while several still maintained a proud and stubborn independence, holding out equally against the concessions of the College as against their more rigid demands.

The measure of association, however, has not been wholly unproductive of good, for since that period the College has considerably increased the number of its fellows, but without entering into any regulations for altering the mode of electing them, or providing any security against the effects of a monopolising spirit, whenever this shall again spring up among them.

In the Dublin College of Surgeons, though I find somewhat to condemn, yet I have infinitely more to approve of than in the sister corporation. And it is interesting to observe, that both here and in London, the institution of recent establishment evinces much more both of liberal sentiment and sound judgment, than that which claims so much higher an antiquity.

This College examines for surgical licenses all who have undergone the *necessary apprenticeship*, and attended the necessary lectures and dissections. The examination for a license is their principal one. They examine, however, both surgeons and mates for the army and navy, and supply to both a large number of medical practitioners.

The licentiate, in two years from his examination, is eligible as a member of the College; and unless he is chargeable with some instance of medical or moral delinquency, he is elected on a simple application, and admitted on paying a further inconsiderable fee.

To this body is Ireland indebted for furnishing its population with an abundance of surgical practitioners, well grounded in anatomy, and the knowledge of surgical diseases. The errors of this establishment are, that affecting an equal elevation to that of the physician, and endeavoring to preserve between the several departments of physic a forced and unnatural distinctness, they have disdained too much the conjunction of pharmacy with the practice of their art, and on most mistaken principles have prohibited their licentiates therefrom on pain of expulsion.

And indeed the combination of pharmacy with surgery in the person of the surgeon, seems in Ireland doubly guarded
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against, and utterly impracticable; for should the surgeon, urged by his own necessities, and the pressing wants of a provincial district, resolve on foregoing his license in preference for what would much more materially serve his immediate interests, he would soon find the establishment of a dispensary opposed by another chartered body, the company of apothecaries, who would prohibit his practice in this line unless he were to become a member of their body, a matter by the way utterly unattainable by such practitioner, inasmuch as it requires a long *apprenticeship to pharmacy*, as well as examination, in order to accomplish it. Thus, in their zeal to maintain the dignity of surgery, and to hold an equal rank in society with the physicians, they have overlooked altogether the wants of the public at large for a general practitioner, and have actually imposed on the apothecaries a positive necessity for assuming the character, with what advantages to the community I need not descant on. That these have supplied the want in the best way that the case admitted of, I readily grant, and if any reproach attaches to their manifold incapacities, I am far from imputing an atom of the blame thereof to the apothecaries. They only fulfilled the wishes of the public in becoming general practitioners; and if this class has in Ireland been exclusively formed by superadding to pharmacy the practice of physic and surgery, without any qualification in these latter departments being ensured or attested, instead of the more rational mode adopted by the London College of Surgeons, of leaving the practice of pharmacy open to the well-informed surgeons whenever the nature of the population rendered a union of the departments necessary, the blame must rest any where rather than with the apothecaries. They are now a respectable and deserving body of men, and may well feel some indignation at the supercilious treatment of their more dignified competitors.

But while I appreciate their merits, and vindicate their character, I by no means intend to offer a single plea for this department of medical practice being resigned to them. On the contrary, I conceive it a matter of actual necessity that it be transferred to other and more competent hands; and if the Dublin College of Surgeons will only emulate the liberality and sound policy of the London, and empower their licentiates to combine pharmacy whenever the wants of society render it expedient, the control of the Apothecaries Company being at the same time removed, there can be no doubt but that this change would take place by a silent and unperceived, though certain and progressive operation, without any individual injustice being exercised, or

any interruption taking place in the necessary attendance on the public. As one body of practitioners increases, the other will insensibly decline. Young men entering the profession will naturally qualify themselves for that line which is likely to prove both most lucrative and most respectable, and thus a body of practitioners will in due time arise, for each and every one of whom the public will have a full assurance of regular education, and perfect qualification.

Were such the condition of the general practitioners, we should soon cease to hear of their murmurings or complaints at receiving inadequate remuneration; complaints which proceed from the excessive numbers and disorganised state of the profession at large, which has engendered a most disgraceful species of competition among the rival practitioners, and by inducing the worst among them to advance themselves by underselling their opponents, establishes them on the ruins of the more meritorious members, and finally vilifies and degrades the whole.

I have dwelt long on this subject, both in this place, and when treating of the London College of Surgeons; and I do so the more readily, because I conceive it to be the point on which the establishment of a competent body of general practitioners must depend. It is one too on which much prejudice prevails, even among enlightened men; and on this account I am the more anxious that its real merits should be thoroughly understood, and that the sources of fallacy which have heretofore obscured the reasonings, and clouded the judgments of those who have considered it, should be detected and exposed.

The two great obstacles to the arrangement which I advocate, are, an impression on the minds of surgeons that their dignity would be compromised by allowing their members to conjoin pharmacy with surgery in their practice; and a sort of indistinct and unsettled notion in the minds of the reflecting part of the public, that such combination must necessarily engender in the mind of such mixed practitioner a constant struggle between self-interest and moral principle.

On both these heads I shall now offer a few remarks, and then dismiss the subject altogether.

That the dignity or real respectability of any profession shall be lessened by that which materially increases its usefulness, is a position which will not be easily maintained; and, though that of the individual members who hold the highest stations might suffer were they to continue to dispense medicines when so elevated, it does not appear consistent either with reason or fact to conceive that these can be affected in any

any such way by the dispensing of medicines by the subordinate members; and, as I can show pretty clearly, by reference to facts, that this consequence does not result from such combination, I shall be satisfied to try the question by this test alone, as being that concerning which there can be the least cavilling or disputation.

The London College of Surgeons grant their highest license to men who practise pharmacy, yet it does not appear that any disrepute in consequence attaches at the present day to the names of Cline, or Cooper, or Abernethy, or any of the almost endless train of scientific and enlightened practitioners whom it has the honor of claiming as members of its body. I appeal to general experience too, whether the independant surgeons who are to be met with in all the larger towns of England are not to the full as respected, and respectable, as any members of the Irish College. Nay I may carry my argument still further, and show that even the dispensing of medicine by the individuals themselves is no bar to their arriving at high eminence, or attaining the first respectability; and, in proof of the position, I may confidently appeal to our third metropolis, in which all the very highest members of the profession of surgery keep their own shops and dispense their own medicines; yet it does not appear that the names of Bell, of Russel, of Wardrop, of Wood, or of Thomson, or any of the enlightened and liberal practitioners in surgery with which the city of Edinburgh abounds, are either the less respected by the public, or the less esteemed in private society. It is surely unnecessary to go beyond these proofs, or to advert to the almost universal practice of the American physicians, with whom, if I mistake not, it is even a matter of legal injunction to combine pharmacy with the practice of physic.

I trust I have sufficiently shown that the wants of society clearly require such combination; that it is infinitely preferable to effect this by conjoining pharmacy with surgery and physic, rather than by suffering these branches to be assumed without proof of qualification, by the mere practitioner in pharmacy; and finally, that it does not derogate from the real dignity of a Royal College, or impair the respectability of its members, to admit of and authorise such combination.

To argue at length the question whether the science of medicine has been benefited by the subdivisions of its practice, and whether and to what extent it would be desirable or practicable to re-unite them, would lead me far beyond my present purpose. The position that such subdivision has conduced either to its improvement as a science, or to its

its beneficial application in practice, is one which I am convinced may be satisfactorily refuted.

It is not many years since this question became the subject of a prize essay in a German academy, and produced fourteen answers, of which thirteen were in favor of the reunion and one against it; yet so inveterate are long-established prejudices, and so ineffectual the light of reason in dispelling the mists with which their objects become enveloped, that to this one the prize was adjudged, although in every page the author is seen to struggle against the suggestions of his better reason, and is finally found to negative, not the direct question of the academy, but a peculiar modification of it by himself. I need hardly refer my readers to the *Edinburgh Medical Journal* for January 1807, for a further account of this interesting discussion, as the book must be in all their hands, and the paper I allude to familiarly known to them.

Of the apothecaries of Ireland I need say but little. They are in part the general practitioners of the country; but the surgeons, who are become numerous, successfully dispute this ground with them, and notwithstanding the disadvantage of not being allowed to combine pharmacy with their own profession, they yet are very extensively employed in the practice of physic, and hold as it were a middle place between the physicians and apothecaries. Still these latter engross a very large proportion of both medical and surgical practice, and their encroachments have been the subjects of loud and lasting complaints by both surgeons and physicians.

In short, so strangely perverted and unharmonised has the whole medical profession become in this country, that it is impossible to conceive any change that could be productive of equal recrimination. The surgeon exclaims against the apothecary, the physician accuses both, the apothecary retorts, and thus they go on mutually exasperating each other by every vilifying epithet and opprobrious insinuation, until they have rendered life such a scene of heart-burning animosity and contention, that the strongest feeling of every liberal mind must be a desire to escape for ever from the profession and its bickerings, and to seek some Lethæan balm by which his wounded spirit may be healed, and rendered oblivious of all the harassing and depressing cares with which professional life is so thickly beset.

The apothecaries have a corporation which superintends the education and practice of pharmacy, its control extending all over the kingdom. It affords no assurance, however, either of medical or surgical attainments on the part of those examined,

examined, although they are necessarily destined to practise extensively in both departments. This corporation is also a joint stock company, and divides a large per centage, from the profits of drugs sold at the Apothecaries' Hall.

I shall now briefly advert to the state of medical education and practice in Scotland, and then conclude with a few observations relative to those measures which would tend most to improve the general condition of the profession, and which should, consequently, form the basis of any legislative enactments that might be intended to accomplish this desirable purpose.

The university of Edinburgh provides a complete course of medical instruction, and confers degrees in physic after resident study and examination.

That of Glasgow does the same.

The universities of Aberdeen and St. Andrew's possess no schools of physic, but they confer degrees in physic, notwithstanding, on those who bring certain certificates from individual practitioners, and who pay the fees, amounting to twenty-four pounds. Such is the present price, as officially notified by a letter from St. Andrew's, now before me, dated in the present year; but it seems to have been enhanced of late years, for, unless I am much mistaken, the cost of such degree was formerly but thirteen pounds.

The Edinburgh College of Physicians are obliged to admit all doctors of the Scottish universities to their association without examination, and only on paying the necessary fees. They may examine graduates from England, Ireland, or foreign universities; but I rather think their practice is to be satisfied with inquiring into the education and previous qualifications of such candidates, and that, finding them to have been regular and complete, they grant their license without further difficulty.

The surgeons of Edinburgh examine their candidates both in surgery and pharmacy, and they even require specimens of compound medicines prepared by the candidate, to be exhibited in proof of his practical acquaintance with the art. How far they inquire into his medical attainments, I am not prepared to say. They thus provide a general practitioner equally proved as to his qualifications for general practice as is the *surgeon-apothecary of England*, and equally combining in his own person the several departments. From this source the general practitioners of Scotland seem to be principally derived, nor do I find that mere apothecaries prevail among them. They are certainly not sustained by any corporate rights, nor do they seem to claim any particular attention.

The

The surgeons, as has been already observed, are allowed to combine pharmacy without any limitations or restrictions, and accordingly the very first surgeons of the city dispense medicines for their own patients.

The question has, some time back, been warmly contested in the Edinburgh College of Physicians, whether the members thereof should not also be permitted to dispense medicines, and the bye-law which prohibited them from doing so be rescinded. The controversy it gave rise to must be too fresh in the minds of my readers to render it necessary for me to do more than merely advert to it in this place. The proposition for repealing the law was numerously and respectably supported, but it was opposed by the distinguished professor of the practice of physic with all his characteristic ardour, and, I believe, finally fell to the ground, a fate which I cannot but rejoice at, as I believe the proposition itself to have been founded on very mistaken views of the medical profession; for, though I lay no stress whatever on the objections to the measure, grounded on certain moral principles that were brought against it, for the reason, that, as the combination of departments must take place in some individuals, I conceive that less moral turpitude is likely to attend the practice when committed to the higher and better educated orders of the profession, than when consigned to the lower, still I cannot see adequate reasons for admitting such combination to take place in the persons of the physicians. The strongest motives which justify such combination in the surgeons and general practitioners are here wanting, for even with this assistance the physician cannot become qualified for general practice. Surgery would still be wanting to him, without which he must be utterly incapable of undertaking the duties of this line of practice.

Much better is it then to leave it altogether to those who are most competent to undertake it, and that the physician should appear only where his services are required, and where they can be duly rewarded without such adscititious expedients. Nay, I am not at all sure that such combination in his person would not very effectually lessen his own dignity, and degrade his department. It is the motive, rather than the act, that produces such consequences, and with him it could only proceed from sheer love of gain, without any peculiar advantage resulting to the public.

Having now thoroughly reviewed the actual state of medical practice throughout the British isles, I trust I have succeeded in demonstrating, with some degree of clearness and precision, the natural tendencies which it affects, and the injurious influences which at present pervade it; and, if my arguments

arguments in favor of that union which must take place in some order or other of practitioners, and which no restrictions on the part of chartered bodies have power to prevent, are of any weight, the prejudices which have so long contended against this must give way; the misapplication of certain principles taken from writers on political economy, respecting the advantages resulting from a division of labor, become manifested; and many obstacles be removed that might be opposed to these regulations, which would relieve the profession from its greatest grievances, and render it at once valuable to the public, and beneficial to the members composing it.

In the detail of these measures I shall be very brief, and indeed shall do little more than merely hint at them; for though I have investigated, and I trust with some success, the source of many of the evils which affect the profession, I have by no means prepared myself for pronouncing decidedly on those remedial measures by which they should be corrected. If the principles advanced, however, are sound and just, the nature of the remedies required cannot long be a matter of doubt, but must flow naturally from a knowledge of the tendencies to be encouraged, or the evils averted.

It appears pretty clearly, I think, from the foregoing inquiry, that the public must have a practitioner for general purposes, in whom the several departments are more or less combined, and that the advantages of such combination to the practitioner are such as to counterbalance the many great and glaring defects with which practitioners of this class have been so frequently and not undeservedly reproached; and the further result of my observations respecting the combinations of the different departments in the superior classes of practitioners, is this, that the physician may exist without combining with his own profession either surgery or pharmacy; that the addition of the latter would not qualify him for general practice unless surgery and midwifery were also combined; and that the experiment, if tried, would be found utterly to fail in giving to the physician a parity of advantages with either the surgeon or general practitioner.

The surgeon may dispense with pharmacy, and may send his prescriptions to the druggist, who is now in fact what the apothecary was formerly; but he must in self defence combine the practice of physic in considerable proportion, else he must yield his own place to the more general practitioner, and sink into even greater inactivity than the physician, inasmuch as the quantity of medical practice greatly exceeds the surgical; and even in large towns it is well as-

certained, that adherence to surgery alone will hardly procure for its votary common subsistence, unless he has already arrived at high eminence in that department.

The candidate for general practice must in his own person combine all the several departments of physic, surgery, midwifery, and pharmacy, if he means to have a fair prospect of succeeding as a popular practitioner. The only question that remains, therefore, respecting this class, is, whether it is adviseable to form them by encouraging the proved licentiates of the surgical colleges to combine pharmacy with their other pursuits (a measure so beneficially resorted to by the Colleges of London and Edinburgh); or to leave the apothecary to engraft on the art of dispensing, the more abstruse ones of surgery and physic, without having his qualifications in these respects at all vouched for or ascertained. That many of the class of apothecaries are as well prepared at the present day for general practice as any of the surgeon-apothecaries, I believe to be a fact; but for such perfect qualification we are only indebted to the industry and moral principle of the individual, and should be lamentably disappointed were we to calculate on these qualities being possessed by every individual of this body, or indeed of any numerous body in existence. Such a supposition would be against all experience, and could never justify our leaving open so important a profession as that of physic to men for whose capabilities we have no assurance but such as their general characters for integrity and moral rectitude may convey.

To the other class of general practitioners there can be no possible objection. They are thoroughly qualified, as far as it is practicable to accomplish this, or rational to expect it; and their qualifications are proved. They are rapidly taking place of the less eligible practitioner throughout every part of the kingdom; and, in truth, the presiding powers have only not to interfere or interrupt a revolution which is actually taking place with sure and certain progression.

It would certainly materially facilitate and expedite this desirable change, and tend still more effectually to render identical the class of general practitioner throughout the kingdom, if some measures were adopted for incorporating with the surgeons the rising generation of apothecaries, by admitting them to examination for licenses from the Colleges, and previously pointing out the course of study that should be required from such candidates. The multiplication of regular practitioners would then proceed with inconceivable rapidity, the public would be supplied with them in proportion to its wants, injurious competitors cease to exist
among

among men who would then be equally and similarly qualified, and in due time the whole department find its proper level, so as no longer to be overrun by excessive numbers, the great cause of that inadequate remuneration so loudly and generally complained of. To legalise the present race of apothecaries by any system of examination or license, I conceive to be a proposition absurd in the extreme. As all men now enjoying medical practice must be left in undisturbed possession of the same, however ill qualified they may be, let the present race pass away, and be replaced by a better order of men, as they undoubtedly will unless the natural operation of things shall be interrupted and impeded by some such injurious measure as the bill about to be presented to parliament.

In England, the system which is to supply these better-qualified practitioners is in full operation, and will produce its effects independent of any extraneous aid.

In Scotland too the members of the College of Surgeons seem to supply the population of that country with all the general practitioners they require.

But in Ireland an essential change must take place in the conduct and sentiments of the Dublin College of Surgeons, else they need never hope to supersede the apothecaries in the field of general practice, nor to render the class of general practitioners what they ought to be. Let this body lay aside the false pride which forbids its licentiates practising pharmacy; let these accommodate themselves to the state of population in their respective districts as circumstances may require, and either combine pharmacy or not with their other practice, as their necessities or inclinations shall prompt them; and a numerous, respectable, and well-qualified body of practitioners will spring up, whose superiority over the uneducated apothecary will be speedily discerned and acknowledged, and who will gradually and imperceptibly displace these to the decided advantage of the public. The necessity for such a change too in Ireland is the greater, because the apothecary has not there equal opportunity for improving his qualifications as the similar practitioner has in England, the Irish hospitals not being in general so well arranged for affording instruction to pupils as those of London, nor are the private teachers by any means so numerous or so well established.

To all enactments for regulating the price of medical assistance, or legalising its specific demands, I am decidedly hostile. The fluctuating value of money must render it a matter of endless revision, independent of every other sound and weighty objection that may be brought against such

provision. That it is necessary, generally speaking, to enforce payment for professional services, I disbelieve; and if the operation of such causes as I have been exploring, has given rise to an injurious competition among medical practitioners, and by introducing among them some of the meanest and basest of mankind, has originated within this body a system of underselling as it were, and of superseding each other by every fraudulent and unworthy art,—the remedy must be sought, I should think, not in giving power to the regular practitioner of enforcing payment of his demands, but in effecting those salutary purifications of his profession, which would render such compulsory measures unnecessary.

Were the experiment tried even, and the fullest power granted by statute to enforce payment for professional services according to any established scale of remuneration, I am thoroughly persuaded that not a single individual of this body would eventually profit by possessing such. A sufficient number would be found to avail themselves of so golden an opportunity for vaunting of their own moderation and liberality, and by declining to exercise an authority so injudiciously accorded to them, would effectually supplant all those who should have the temerity to resort to it. Nay, the very men who are now loudest in their complaints, would, most probably, be among the foremost to apostatize from their own system, and would thankfully accept the voluntary payment even though beneath the regular demand, rather than exact the full dues by legal process. In short, a more injudicious measure, I conceive, could hardly be contemplated; and I am perfectly satisfied that its effects, if carried into a law, would, both on the general profession, and on the individuals composing it, be those of unmixed evil.

I have now disposed of the great and most important question, that of the general practitioners, and I call it so without fear of contradiction, for on the competency of this class must the great mass of the population rely for the preservation of health and removal of diseases. To by far the largest portion of society they are the sole physicians, and even the highest ranks are known to depend with the fullest confidence on their skill and ability. Domesticated, as they so frequently are, in the families of the great, these have continual opportunities for appreciating their merits: they become familiar with their characters, acquire a personal attachment to them, place an entire confidence in their skill and integrity, and finally, when trying circumstances arise, or dangerous diseases assail them, yield with reluctance to the demand for further assistance, and are ultimately

ultimately induced to call in the surgeon or physician, more from a desire of indulging their favorite attendant, and skreening his character, than from any hope of benefiting by the compliance.

For these and many other considerations, I shall be pardoned, I trust, for having dwelt so much on this particular subject, and for having given it so prominent a place in the present inquiry. If its merits are once rightly understood, no difficulty can afterwards attend the due regulation of the other departments, each of which will speedily find its proper level, and the whole become harmonised into one perfect and efficient political institution.

Respecting surgery, I have only to lament, that the system of education provided for it does not necessarily include a larger portion of medical knowledge, and that this is not more dwelt on in the course of a surgical examination. I suspect much that the surgeons are restrained from combining these subjects by some false and untenable principles respecting an imaginary necessity for keeping the professions utterly distinct, and by a sense of honor towards the corporations of physicians, and an unwillingness to trespass on their province; but when it is once clearly understood that they have to qualify men not merely for surgery but for general practice, and further, that even those members of their body who profess surgery exclusively, are nevertheless under an absolute necessity of practising physic likewise, it is to be hoped they will see the propriety of correcting their views, and not only promote the acquirement of medical information by making it form a suitable part of the preparatory course of education, but openly and manfully avow their purpose by constituting it a subject of examination.

A few observations now on the department of physic, and I shall conclude.—This body must not aim at furnishing to society general practitioners. They must be satisfied to exist in the greater towns, and more populous districts, where only the separate departments can be severally maintained. And with this they should rest contented, as it affords an ample field and full encouragement for their talents and exertions. The field, however, must not be overstocked with laborers, else the harvest to each must be small and inadequate. All irregular supplies, and especially of incompetent physicians, should be at once cut off. The Scottish universities, which grant degrees on private certificates only, should have the privilege rescinded. The English universities, too, should either establish in each a competent school of physic, or they should insist on a previous course

course of study, similar to that required by the other British universities, so as to render their degrees equally conclusive respecting the education and qualifications of the possessors, as are those of Edinburgh, Glasgow, and Dublin. Such harmony and consentaneous proceeding on the part of the universities by which these kingdoms are supplied, would take away all pretence for any subsequent examination by the Colleges of Physicians, whose office would then be wisely restricted to examining into the reality of the degree produced by a candidate, who on due proof of its having been regularly obtained, should be forthwith admitted.

A power should not be vested in these bodies, unless under very particular circumstances, to retry a medical graduate, whose degree had been obtained after resident study and examination; nor should they be subjected to the temptation of throwing those obstacles in the way of such candidates, which a selfish and narrow-minded policy, and a jealousy of encroachment, might suggest to them. A power of this kind they manifestly possess, so long as they retain the right of examining medical graduates; and while this is the case, the suspicion of exercising such power unfairly, and for sinister ends, will ever be entertained.

We must all know how possible it is, in the wide and almost boundless range of science which a perfect medical education comprises, to find some unfrequented track, which a candidate intent only on the plain straight forward road of his profession may have never travelled, and on which he may readily, by a wily examiner, be made to stumble. There seems no pretence, however, for such power being at all exercised by Colleges of Physicians, while many cogent reasons may be urged against it; and therefore there can be no doubt, in my mind, that it ought to be abolished.

In the internal regulation of these bodies, too, some amendments should take place. If the distinction of fellows and licentiates be necessary, and that it is deemed expedient to vest the corporate rights solely in the former, let them be prevented, as far as is practicable, from abusing the trust reposed in them; let them not have the power of reducing their numbers by neglecting to elect; nor of establishing a monopoly, by which private interests alone are promoted, while those of the public are trampled on and forgotten.

The preservative against this species of corruption is plain and obvious, and consists merely in rendering it obligatory on the fellows to keep up their number to a certain amount, and committing the election to vacancies entirely to the licentiates: these would be pretty sure not to fail in exercising this power when duly called on; or should they unaccountably

accountably neglect their duty in this respect, it might then be competent to the fellows, after a given time had elapsed, to hold such election themselves. The body corporate can be considered in no light but as representing the body at large; and it is surely a solecism in representation for the representative body to be formed by means of election conducted by the representatives, and not by the represented.

It is quite unnecessary to pursue the subject, or to enter into more detail. From what has been already written, it must appear sufficiently plain what are the amendments necessary in the profession of physic, considering it as one comprehensive political institution, and also how they may be best effected. For some of them the interference of legislative power would doubtless be requisite, while many might be effected by mere arrangements on the part of our universities and medical corporations. Some there are which require only not to be impeded by improper interference, or inconsiderate legislation; and it was principally on account of these, which appeared to me to be in much danger from the well-meant but injudicious zeal of our reforming societies, and not with any vain hope of being able to organize anew so great and complex a body, that I was induced to bring forward the foregoing remarks: if they tend to introduce a juster way of thinking respecting this much-abused profession, and to convey juster and more distinct conceptions respecting the various characters that belong to it, I shall conceive myself repaid; my utmost expectations will be answered if they should have any effect in preventing those unwise measures about to be proposed to the legislature from receiving their sanction. I cannot think that the subject is at all prepared for undergoing a legislative discussion; and I am fully persuaded, that any such bill as the apothecaries are about to bring forward, must, if passed into a law, be productive of incalculable injury. My reasons for this opinion, and the principles which it is founded on, I have endeavored in the foregoing pages to place before the public as distinctly and forcibly as I can; and I now take my leave of the subject, in the hope that it will speedily attract the attention it deserves, and be discussed at greater length by some more able advocate.

One parting sentence more relative to the writer of these remarks, to whom views might otherwise be imputed which might tend to lessen his credit with the public, and possibly impair the force of his arguments; a mode of reasoning by no means unfrequent, and which it is deemed prudent thus to anticipate. He is not a surgeon, seeking to vindicate his encroachments on the province of physic; neither is he a surgeon-
1 apothecary,

apothecary, however earnestly he may have advocated the encouragement of this excellent species of practitioner. To physic alone does he belong, and he can appeal to the Editors of this Journal for the truth of these assertions. When the tenor of his remarks is recollected, he trusts he will stand acquitted of all undue bias towards his own particular department, and will be deemed justified by truth in subscribing himself

A disinterested Physician.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

I WAS very much gratified on reading a paper in your Journal of July last, written by Dr. Kinglake, on the good effects of Arsenic in cutaneous complaints; having myself, for a great number of years, witnessed the most beneficial effects from exhibiting that medicine in the form of Fowler's Solution; especially in cases of *lepra vulgaris*, (according to Dr. Willan's definition,) and I do not recollect a single instance of failure in that form of disease. It has also proved highly beneficial in different species of Psoriasis, as arranged by Dr. Willan, but not so generally efficacious as in the former complaint. Although I perfectly agree with Dr. Kinglake, in regard to the superior efficacy of the medicine in question, yet my experience does not coincide with that gentleman's, as it relates to the period when the good effects resulting from its exhibition are observable; as in all the cases which have come under my care, the change has generally taken place comparatively in a short time; and the complaint has either entirely disappeared, or nearly so, before the medicine has been discontinued.

I have not administered the medicine in any case resembling Pemphigus, as that disease rarely occurs. I might also observe, that I never ventured to give so large a dose as twenty drops, having frequently found that patients have not been able to take more than six drops at a time, without producing some derangement of the stomach, although it never occasioned any bad effects to my knowledge. It is, however, not only a medicine that requires to be administered with much discrimination, but also great attention is necessary in preparing it. Some years ago I minuted several cases, in which the mineral solution had been advantageously employed; and if you think the following worth inserting in your valuable Journal, they are at your service.

I remain, Gentlemen,

Your most obedient Servant,

Bath,
August 12, 1813.

W. WHITE.

The

The first time I witnessed the good effects of this mineral solution in cutaneous complaints, was a case of Psoriasis diffusa, which occurred upwards of twelve years ago. A woman, about fifty years of age, came from the country for the purpose of using the Bath waters; but, in consequence of her being afflicted with asthma at the same time, I judged bathing improper, and therefore directed her to take twelve drops of the solution three times a-day. In the course of a few weeks she got perfectly free from the complaint. Some years afterwards she wrote to inform me that the disorder had returned in a slight degree, and requested to have some more of the drops, which in a short time again removed the disease.

Case II.—A lady, about fifty years of age, had been afflicted with Psoriasis inveterata for several years, and had tried a variety of medicines in vain; and also had used the Bath waters for some time, without any apparent advantage. The disorder had spread almost over the whole surface of the body. Her legs were scaly, and between the scaly patches of the cuticle there was a redness of the cutis, with a serous discharge; likewise a considerable roughness about the face and ears. Her arms were swollen; the cuticle, particularly below the elbow, was much thickened, white, with fissures. The solution was exhibited, and the dose gradually increased until she took sixteen drops three times a-day.* In the course of a few weeks the skin became nearly clean, when the lady left Bath, and took some of the medicine with her. About a year afterwards I had the pleasure of seeing her free from the complaint.

Case III.—A girl, eleven years of age, had a leprous eruption (lepra vulgaris) on her arms and legs three quarters of a year. She took Solut. Miner. gtt. viij ter indie, and used the warm bath. In six weeks she was entirely free from the eruption. After remaining well some time, the disorder returned. The same means were again employed for a few weeks, and the complaint entirely disappeared.

Case IV.—Ann Bateman, aged fourteen, had had the Psoriasis diffusa several times on her arms and hands, commencing with an itching and rising of the cuticle, which ended in fissures. Sometimes small vesicles appeared, which broke and discharged a serous fluid. She had the complaint this time about a month.

July 27.—Cap. Solut. Miner. gtt. vj ter in die.

Applic. Ung. Saturn. part affect.

She was not perfectly cured till the 10th of November.

* The warm bathing was continued.

Case V.—Master M——, between one and two years of age, had been afflicted with an eruption* on his face for several months, which resisted every means that had been employed, and at length spread over his arms and legs, so that almost every part of the body was affected with it. There was a serous discharge from several parts. Two drops of the solution were directed to be given twice a-day, which were increased to three drops, and to the parts that required it a cooling liniment was applied. After pursuing this course for some time, the child got perfectly well.

Case VI.—M. Young had been afflicted with the *Lepra Alphos* for nearly ten years. The disorder chiefly occupied the elbows and arms below, also the knees and legs. He began taking eight drops of the solution, three times a-day, on the 8th of September; and by the 19th, very little of the scaliness remained, without the assistance of warm bathing.†

Case VII.—Eliz. Sloper, aged forty, had been afflicted with *Lepra Vulgaris* on her arms and legs fifteen years. Some of the patches were very large, and the scales very thick. She had taken a variety of medicines without any benefit, and the disorder was increasing. Sometimes she had found a little relief from warm bathing.

Sept. 21.—Capt. Solut. Miner. gtt. viij. ter in die. Utet. Baln. tepid.

Oct. 29.—Skin almost perfectly clean. She continued well the following May.

Case VIII.—Eliz. Sheen, aged twenty-nine, had been afflicted with *Lepra Vulgaris* about six months; her face, arms, and legs, were nearly covered with the eruption. She took eight drops of the solution three times a-day, and in six weeks the complaint entirely disappeared.

N. B. It is now several months since, and the disorder has not returned.

Case IX.—Miss M——, about ten years of age, of a delicate habit and fair complexion, had been afflicted with *Lepra Vulgaris* on her arms and legs for some time; the disease had likewise affected her head, which was covered all over with dry scales of considerable thickness, assuming a honey-comb appearance. A linseed poultice was ordered to be applied to the head night and morning, which in the course of a short time removed the scales. She was directed to take six drops of the solution three times a-day, and in the course of a few weeks cured the complaint.

* Psoriasis diffusa.

† Nevertheless, I consider warm bathing an auxiliary, as it certainly does expedite the removal of leprous eruptions.

Case X.—A gentleman, about seventy years of age, had been afflicted with Psoriasis Scrotalis for several years; and, after having consulted several of the most eminent practitioners in London, and making use of a variety of local applications by their advice, as well as undergoing a long course of alteratives in vain, was completely relieved from the complaint by the solution. The dose was gradually increased to fifteen drops three times a-day.

For the Medical and Physical Journal.

*On the MELKSHAM CHALYBEATE and SALINE APERIENT SPA,
Situated near the Great London Road, about half a mile from
the Town of Melksham, and twelve miles from Bath.*

AS the following short analysis of this water, when joined to its known medicinal qualities, certainly ranks it with the saline purgative waters of Cheltenham and Leamington, it cannot be deemed improper to apprise the public of the existence of so valuable a spring in this neighbourhood. The medicinal effects of this water, clearly point out that it is a saline purgative; but its taste, although strongly saline, and greatly resembling the sea and other waters of the same description, is more unexceptionable; and, from being composed of many substances, which are combined in the great laboratory of Nature, whereby the exact balance is probably preserved under a triple, or even a quadruple alliance between the several salts contained in it, this water, like others of a similar kind, produces an aperient effect, with the smallest possible expenditure of purgative ingredients, and without that intenseness of saline impression, and that repulsion of the taste, which take place in the artificial solutions of the neutral salts.

The spring rises in a field near Melksham, from nearly the top of a mound of earth, which was formed about fifty years ago of the materials which had been dug out in sinking a shaft for the purpose of seeking for coal. After penetrating to a great depth, the miners came to a very hard rock, on piercing through which, this water rushed in upon them, and was so abundant that the scheme for finding coal was entirely abandoned. The shaft was filled up with timber and earth, and the spring has ever since continued to flow above the original level of the field. At this height it produces a pint of water in three quarters of a minute, from which circumstance it is presumed that at some depth an almost indefinite quantity of it might be obtained,

Many people in the neighbourhood have for some time past experienced salutary effects from this water as a medicine, their notice having been attracted to its peculiar qualities by the consequences to the cattle that drank it, and by the frequent visits of the wood pigeons to the spring.

It was owing to the observations made by Mr. Flower of its saline quality, and to the advantage which Mr. Phillips, a gentleman of Melksham, derived from using this instead of Cheltenham water, that it has this summer been brought into notice; and in compliance with a request made by them, Mr. J. Long and Mr. Bruges, I have thus brought my observations and experiments before the public.

I accurately weighed four ounces of this water in an evaporating earthen vessel, which I had previously put in equipoise, with correspondent weights in the other scale; when, gradually evaporating the water, I found, after placing a four ounce weight in the scale with the vessel, that it took twenty-one grains in the other scale to restore the exact equilibrium. The balance is a most excellent one, and nothing occurred that could detract from the accuracy of the experiment. Twenty-one grains in four ounces, allowing twelve ounces by weight to the pint, make sixty-three grains in a pint, and five hundred and four in a gallon, or five hundred and fifty-two grains in a gallon or more if brought to sixteen ounces avoirdupoise in a pint. As I brought the evaporation quite to dryness before a large fire, and as many saline substances found in mineral waters contain, when crystallized, from 30 to 50 per cent. of water, this quantity far exceeds the estimate given by Dr. Fothergill of the contents of a gallon of Cheltenham water, namely, 555 grains of crystallized salts.

I am also authorized by Dr. Sims to state, that he procured from a beer gallon of this water 955 grains of crystallized salts, equal to 782 grains in the wine gallon, which is at least 227 grains more than Dr. Fothergill found in the same quantity of Cheltenham water, and allowing about 40 per cent. for the water of crystallization, is in exact coincidence with my experiment.

The tincture of litmus was not reddened by it; but litmus which had been reddened by a slight acid, had its color restored on the addition of the water.

Salts, both earthy and saline, with sulphuric acid, are contained in this water; for a precipitation ensues on the addition of muriate of barytes and the oxalate of ammonia. A prodigious precipitation takes place on the addition of the nitrates of mercury, and of silver; therefore the water contains a large proportion of muriatic salts, the principal of which

which is the muriate of soda, or common salt. The crystallization of an immense number of cubes, when examined in the microscope, shows this fact, and points out a resemblance between this water and that of Leamington, in Warwickshire.

Although there appears to be a ferruginous precipitation after the water has stood some time, and some appearance of the kind around the source of it, yet I could not observe that either tincture of galls, or the prussiate of potash had any sensible effect upon the water when it had been removed some hours from the spring; but, at the source, although there was no indication of iron by the prussiate of potash, yet the fresh watery infusion of galls struck a purple in it, and when the calcareous earth had been precipitated by oxalate of ammonia, there was an evident purple color induced by the tincture of galls.

The slightest if any change takes place on the addition of muriate of lime; there is therefore no alkaline carbonate, which I had suspected, from the decided effect produced on the reddened litmus, though that may arise from the carbonate of lime contained in the water.

The nitrates of silver and mercury produce perfectly white precipitations, therefore the water contains no sulphur; even at the source, although there is a slight smell and taste of sulphurated hydrogen, yet the nitrate of mercury produces a perfectly white precipitation.

After the calcareous earth had been separated by the oxalates of potash and ammonia, and the clear liquor filtered, pure ammonia produced a precipitation. After carbonate of ammonia had been added to the clear filtered liquor from which all calcareous earth had been precipitated by means of the oxalate of potash, a solution of phosphate of soda produced a precipitation confirming the first experiments as indicating the presence of magnesia. It is owing generally to the muriate of magnesia, that the purgative effect of these natural saline waters is increased; indeed, the combinations of the salts contained in mineral waters, which are effected by nature, far exceed in power any artificial arrangement, either as to the quantity they contain, or as to the quality of those usually found in them.

Although this water has been so lately made the subject of inquiry, many well-attested cases occur of its efficacy in both bilious and scorbutic habits. In doses, similar to the Cheltenham and Leamington water, it acts on the bowels gently, safely, but decidedly; and I find that it neither produces heaviness on the stomach, nor in any way disagrees with the constitution. I can discover no substance from which noxious qualities can be supposed to arise; and I see no reason why it should not be resorted to, whenever it may be necessary to

avoid either the trouble or expense of a journey to Cheltenham or Leamington.

As many chemical as well as medical friends have kindly communicated the result of their inquiries in respect to the qualities and medicinal properties of this water, and as their opinions have been uniformly favourable to its character, and in unison with my own, I can have no hesitation in speaking with increased confidence of the advantages which must result from its use.

The Melksham Spa water contains several substances, that are very active, and which determine the medical properties of many distinguished mineral waters. Its character is saline, and the quantity of saline ingredients is equal to that of the most celebrated springs. The salts contained in it are in their nature purgative, and therefore a constant effect on the bowels, is the action this medicinal water produces whenever it is taken in suitable doses. A countervailing property in this water arises from the presence of some iron, thereby precluding that debility which so often follows the use of the stronger purgatives.

A moderate dose, for instance, half-a-pint, will often act strongly; two half-pints seldom fail to produce a copious effect, and a pint and a half in the course of the day has proved generally a powerful dose of physic.

In doses too small to produce any action on the bowels, it passes off readily by urine, and thus it appears to combine a variety of salutary operations.

The course of the water may be persevered in without interruption for a considerable length of time, even in states of apparently great debility, without producing any inconvenience to the system. The appetite is much improved by its use; it promises the happiest effects in most of the disorders of the digestive organs; and as far as its powers have been observed, it wonderfully improves all those habits of body which are the regular attendants of indigestion. It seems calculated in a superior degree to relieve and remove the bad consequences resulting from bilious obstruction, and to restore to the function of the liver in secreting bile, a due and healthy regularity.

There is also a strong chalybeate spring in the same field.

The eligibility of the situation is unquestionable, it being close to the neat and respectable town of Melksham, and only twelve miles from the city of Bath; and from the above experiments and observations, we may presume that an excellent preparative or auxiliary to a course of the Bath waters, may be found in the Melksham Saline Aperient.

*Laura-Place, Bath,
August 20, 1813.*

G. S. GIBBES, M.D.

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To the Editors of the Medical and Physical Journal.

GENTLEMEN,

IN the Medical and Physical Journal for July last, you have given us a very interesting communication from Dr. Spark, of Ipswich, upon the advantages derived from very large doses of opium, in what Dr. S. terms spasm of the uterus; but which might, I conceive, with more propriety, be called Rigidity of the transverse fibres of the Uterus. It is common with accoucheurs to have recourse to opium for relief, in cases of this nature; but I am not aware that it has ever been given to the extent Dr. S. advises; and having lately met with two cases, in which the result of the practice he recommends has been most favorable, I beg leave, through the medium of your valuable publication, to present them to my medical brethren, together with a few observations upon the nature of such cases.

Case 1st.—About six o'clock on Sunday evening, July 19th, I was called to Mrs. K. of this city, aged 19, in labor of her first child. Her pains had commenced the preceding night, and continued almost incessantly during the day. Upon examination, I found the head low down in the pelvis, the os uteri not more dilated than the circumference of a shilling, and that the pains did not appear to produce the least effect upon it. She had taken but little nourishment, had no sleep, her pulse was very feeble, and she was much exhausted. I immediately gave her fifty drops of laudanum, and directed that small quantities of nourishing food should be frequently administered. At ten o'clock I called upon my patient again, and was informed by her attendants that she had slept a short time after the exhibition of the draught, and had taken freely of mutton broth; yet her strength did not appear recruited, nor her pulse improved. Her pains were still, what are termed grinding; and the dilatation of the os uteri had not made the least progress. Encouraged by Dr. Spark's practice, I repeated the laudanum in the same quantity; and directed them to send for me when they should think it necessary. About one o'clock I was again called, but the child was born before I could reach the house. The nurse informed me that Mrs. K. slept about an hour after she had taken the second draught, that she awoke much refreshed, and entirely free from pain, which had not been the case during the whole of the preceding day and night; and that she continued so for at least half an hour afterwards. The nurse, as well as the friends of the patient, assured me that she had not more than four or five

five strong pains before the child was born. The placenta came away in about ten minutes, and no hemorrhage followed.

Case 2d.—At ten o'clock on the evening of the 8th of August, I was sent for to Mrs. H. of this city, aged 31, in labor of her first child. The head was low in the pelvis, and the os uteri but little dilated. The pains had been frequent since the morning of the 7th. In this case the patient's strength was good. Finding, upon examination during a pain, that little or no impression was made upon the os uteri, I gave her fifty drops of tincture of opium, and left her. Between twelve and one I was again called, but found not the least difference in the nature of the pains, in their continuance or effect; upon ascertaining which I gave her forty drops more of the tincture, and desired I might be called when it should seem necessary. At half after three they sent for me again, and, as I arrived at the bed-side of my patient, the head was passing the external parts. The placenta was set at liberty by the same pain which expelled the body of the child, and only required to be removed from the vagina. She informed me that she had no sleep after the second draught, but lay for some time very easy and comfortable; and when her pains returned, they increased very rapidly in strength, and were (to use her own words) in her belly, and not in her back as before. No hemorrhage ensued.

I was exceedingly gratified, in both of these cases, by the effects resulting from the employment of laudanum, the use of which proved highly beneficial, and was in neither instance succeeded by any unpleasant consequences. On examination (in the first case) even at ten o'clock, not the least relaxation either of the os uteri or external parts was perceptible: on the contrary, the latter were unusually contracted, firm, and rigid, and I could not make my examination without occasioning much pain.

Considering, therefore, all the circumstances, together with the size of the child, which I should have said was large, I have no hesitation in believing, judging from similar cases, that, had not a quantity of opium sufficient to have produced a decided effect upon the system been given, the passage of the head through the external parts, even after the dilatation of the os uteri, would have been slow and tedious, if effected without the assistance of the forceps.

The result of the use of opium in the second case was equally striking, and I imagine no one will differ from me in thinking, that, had it not been administered, the dilatation of the os uteri, which made such little progress in so many hours,

hours, and the passage of the first child of a woman 31 years of age through the external parts, would not have been accomplished in a space of time little exceeding two hours.

Dr. Spark assures us that in this practice "the spirits of the woman are exhilarated, the uterus performs its functions with vigor, it gives way rapidly to the pressure of the child, the placenta never adheres, hemorrhages never follow, the uterus retains nothing, of course the patient is not afflicted with after-pains, and she recovers her health and strength more quickly than those who need not the aid of opium." Perhaps it may be thought that the doctor must have been too sanguine in the above passage: however this may be, the cases I have related are certainly corroborative of his statement; and we are naturally led to enquire how and in what manner these effects are produced. The most rational mode of ascertaining this appears to be an examination of the structure of the uterus itself, (as far as is necessary for our purpose,) and a consideration of the means by which a natural delivery is effected. The muscular fibres of the uterus are found to run in a transverse and a longitudinal direction. The action of the transverse fibres will evidently be that of closing the os uteri, and of flattening the body of this viscus; the action of the longitudinal will approximate the fundus and os uteri, and dilate the latter. The mutual and co-equal action of both will have the effect of embracing and retaining the contents of the uterus. Hence then it will appear that the expulsion of the child must be accomplished by the longitudinal fibres, (assisted by the abdominal muscles,) with the consent or relaxation of the transverse. The greater the degree of rigidity or want of relaxation which may be present in the transverse fibres, the longer will the grinding pains continue, which are nothing more than the contraction of the longitudinal opposed to the transverse in the dilatation of the os uteri.

If then this view of the subject be correct, we at once perceive in what manner the opium produces its good effect. That it causes relaxation in the transverse, and allows the longitudinal fibres to act without opposition; or to be more explicit, the contractions of the whole of the muscular fibres of the uterus being removed, we can easily imagine the longitudinal will be roused from their state of relaxation (by that power which called them into action) before the opium has ceased to exercise its uninterrupted influence over the transverse.

Bleeding has been recommended to facilitate labour, which it no doubt would do by producing the same effect as opium;

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but at an unwarrantable expence to the constitution, except in cases of absolute necessity.

Dr. Spark observes that the tincture of opium has not the effect in any dose. This I could not conceive possible if retained in the stomach; and having the tincture at hand in the first case, when some time must have been lost in procuring the crude opium, I ventured to give it, and its use was followed by the desired effect. The same convenience, and the result of the first case, induced me to have recourse to it in the second.

If it were possible to ascertain the precise quantity of laudanum that would be necessary to take off the action of the uterus, it would be advisable not to give one drop more than that quantity, because, though we are desirous of producing relaxation of the transverse fibres, we should wish to interfere as little as possible with the longitudinal. Might it not, therefore, be advisable to give the requisite quantity of opium in divided doses at short intervals, rather than in six, eight, or ten grains at once, according to the degree of spasm, as Dr. S. recommends, which must be a fallacious mode of ascertaining the necessary dose?

I am, Gentlemen,

Your's, &c.

Coventry,
August 14, 1813.

J. COLLINS, Surgeon.

P. S.—Since writing the above, I have met with a case, which is by no means uncommon, but which might, I think, with more propriety, be referred to spasm. The woman had suffered a month from very frequent pains in her back; her nights had consequently been sleepless. She had frequently been afflicted with diarrhœa, accompanied by tenesmus, which, however, did not appear to affect the general health in any other way than by inducing debility. In this case, no symptom of labour excepting pain was present. I did not, therefore, think it prudent to give opium to that extent I should have done had she been actually in labour, but directed her to take a pill containing two grains of this substance every night at bed-time. In the morning, after taking the first dose, I found that she had passed a good night, had been, and still remained, free from pain. In the course of the day symptoms of labour came on, and she was delivered before nine in the evening.

Sept. 6th.—The ideas which I have ventured to suggest of the *modus operandi* of opium in parturition, induced me to expect that the grinding pains of labour might, in all cases, be greatly alleviated, if not entirely removed, by its proper

proper use; and dispelled the fears I had formerly entertained of hemorrhage being a probable consequence of this practice. Had I not already trespassed very long upon your time and attention, I would have related several cases of natural labour in which I have given it with complete success.

J. C.

For the Medical and Physical Journal.

THE REPORT of the LONDON COMMITTEE of ASSOCIATED APOTHECARIES and SURGEON-APOTHECARIES of ENGLAND and WALES; with the Resolutions proposed as the Bases of a new Bill intended to be introduced in the next Session of Parliament; and the Correspondence of the London Committee with the Executives of the Royal Colleges of Physicians and Surgeons, and of the Society of Apothecaries*.

THE London Committee of Associated Apothecaries and Surgeon-apothecaries of England and Wales have, from the period at which the former Bill for "Regulating the Practice of the Apothecary and Surgeon-apothecary" was withdrawn, been sedulously occupied in the investigation of the objections that were urged against that Bill in particular, and against the measure in general; with a view faithfully to fulfil the high duties of the trust reposed in them—to promote the public good—and, by securing a more complete medical education, eventually to render the profession and its practitioners worthy of each other. That their constituents may have full means of judging how far the Committee have accomplished the great objects upon which they have so anxiously deliberated, it has been deemed proper to submit to them the RESOLUTIONS which have been the result of those deliberations, accompanied with the correspondence that has taken place with the medical corporate bodies.

During the last year, the Committee had frequent and extensive communications with every rank in society, to whom the late Bill was of any interest; particularly with many members of parliament: and it was a concurring opinion that, if the second reading of that Bill had been per-

* It is respectfully requested, that the contents of this Report, and the Copies of the Resolutions, be distributed in the country districts. But the Committee beg leave generally to refer to the Monthly Medical Journals, through which, as a medium in very general circulation, they will regularly communicate all their future proceedings to the medical public.

sisted in and carried, it would ultimately have been lost, or so altered in the Committee of the House of Commons, as to have fallen very short of the purposes for which it was solicited.

Independently of the opposition of three bodies, two of which had confessedly powerful interest, it was represented to be constructed more with a view to private advantage than public benefit; that it was encumbered with many different (perhaps discordant) objects; and that, being at once narrow in principle and complex in form, it could not be countenanced by parliament.

The observations of the Committee, confirmed by the ablest writers who have traced the causes of the present state of the avocation of the apothecary and surgeon-apothecary, clearly and forcibly show that the true source of the evils of which they justly complain, and for the redress of which they associate, is to be found in the facility afforded, by existing circumstances, to every pretender and unlearned person for assuming the name, character, and functions of that department of the medical profession; and from the total want of all means, either prescriptive or legislative, for punishing, or even exposing, such dangerous intruders.

With these facts before them, aware of the jarring complexity of the former Bill, to disarm opposition by avoiding extraneous interests, to acquire general approval by candid avowals, and to guard against misapprehension by simplicity, the Committee have founded the bases of the new Bill on few and nearly self-evident propositions, unequivocal of honest zeal for the *public health*.

Impelled by an anxious desire to remove every impediment to the arrangement of a Bill, comprehensive, yet simple, but efficient for its purposes—the Committee have witnessed, with deep regret, that many of their supporters and correspondents have been too solicitous in pointing out local grievances, and the means of removing them, more calculated to individual and immediate interests, than regardless of the radical defects in the system of education; and which is so justly and truly alleged to be a principal cause of the present deteriorated state of the practice of the apothecary and surgeon-apothecary.

Sensible, however, of the necessity to abandon all minor considerations, and leave local grievances to be corrected, and immediate and individual interests guarded by a few simple but comprehensive principles—the Committee have formed a series of resolutions, now submitted to the consideration of the medical public, as the bases of a new bill, which they hope will be found to embrace all the essential points;

points; and which, when sanctioned by the legislature, will gradually, but certainly, reform that branch of the profession comprehended under the terms apothecary and surgeon-apothecary, rendering it more respectable, and consequently more advantageous, both to the community at large and to the practitioner.

When the comments of the District Committees upon these Resolutions shall be received, the whole will undergo a careful revision, and will be laid before counsel, to receive the appropriate form and legal detail.

A perusal of the correspondence of the Committee with the medical chartered bodies, will show and record the ill success that has attended the repeated and respectful overtures made by the Committee to the Royal College of Physicians of London; and that the Royal College of Surgeons, and the Society of Apothecaries, have returned no answer to the addresses sent to those bodies some weeks since.*

Under these circumstances, it is, at present, impossible to suggest the form, the source, or the constitution of a superintending body; but on this, as on many other important parts of the arrangement, the Committee recommend a confident reliance on the wisdom of parliament.

Events have justified the diligence of the Committee in endeavoring to provide a fund which should be fully adequate to meet all contingencies, and insure the security of the object they have in contemplation, against the chance of failure for the want of means. The gross of the sums received, and the amount of those reported from the country as actually subscribed, induced a well-grounded conclusion, that the resources were equal to every expenditure that could be reasonably anticipated. Consonant with that frankness and desire of communication which the Committee always professed, they expended about 500*l.* in printing, advertisements, postage, &c. &c. that every practitioner in England and Wales might become acquainted with, and be invited to unite in, one great and general ASSOCIATION. In every particular the Committee have endeavored to observe the strictest economy in their expenditure; but, notwithstanding these precautions, and that the Bill passed through one only, and that the least expensive stage, the aggregate expenditure to the present date amounts to 770*l.* 8*s.*

In the general statement subjoined, it is shown that the balance in the treasurer's hands is only 122*l.* 8*s.* 10*d.*

* The Address to the Royal College of Surgeons was dated July 7th; that to the Society of Apothecaries, August 5th, ultimo.

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When it is considered that all the parliamentary and legal charges attending a new Bill, must begin *de novo*, it is certain, if any opposition be encountered, that the present fund will be too small to sustain the expenses of so vast an undertaking with any reasonable hope of success. It is, therefore, an object of the highest moment, that it be promptly and liberally replenished.

The practitioners of London and its environs, who do not constitute a twelfth part of those of England and Wales, have raised above a third of the subscription; and many of the most eminent have devoted a very considerable portion of time, of labor, and of private cost, in assisting the cause.

If the sums which were subscribed in the country, the number and amount of which were transmitted to the London Committee, with assurances of being speedily remitted, had been duly received, the necessity for this further appeal for pecuniary aid would not have been experienced. In this particular, great disappointment and some surprise has been felt. In some instances, the subscriptions have been, without any reason being assigned, entirely withheld; in others, partially remitted; some have made deductions for personal and public expences incurred by them, of twenty-five, thirty, and even fifty per cent. from the aggregate amount of the subscription of entire districts; some keep back money for expences that *may* arise; and many individuals have altogether omitted to fulfil their promises!

However reluctantly, the Committee, in the due execution of their trust, are compelled to acknowledge these disagreeable truths; nor could they discharge the duty they owe to themselves and their constituents, did they not make a full representation of a difficulty, which, if not overcome by more unanimous liberality, and more just and generous feelings, must render nugatory a plan formed to restore and to render permanent the respectability of this branch of the medical profession, and to afford an extensive benefit to society.

If the efforts of the Committee deserve support, they must be met with prompt and vigorous exertions on the part of the country practitioners; subscriptions must be renewed, and those who have not yet subscribed must be solicited. But it is not by subscribing to the fund only that the country practitioner is now called upon to further this great cause. The recess of parliament will afford to him ample opportunity to ascertain the sentiments and receive the advice of members of the House of Commons; to impress on them a full and clear understanding of the motives, the objects, the operation, and the effects of this application to the legislature. Every

chance should be seized of explaining to the peers of the realm, as well as the members of the House of Commons, the benefits that must result to all descriptions of persons by this measure; the little possible evil that can arise out of its operation; and the preponderance of good that will necessarily be the result of its passing into a law.

Neither can the Committee omit to remark, that the present is the time for removing the prejudices which have been so industriously excited in the public mind; nor can it be too often enforced, that, if there were errors in the former Bill, they were those of judgment, and unavoidable in a measure for which no precedent afforded a guide. The Resolutions, as outlines of the intended Bill, should be submitted to members; their opinion should be consulted, and their interest and support engaged. It is of the utmost importance likewise, that the names of such members who declare their good-will toward the measure, should be punctually sent to the chairman of the London Committee.

The Committee, anterior to the meeting of the country deputies on the 23d of March, had received many sensible and highly-interesting communications on that important subject—*Medical Attendants on Parochial Poor*; a system which every moral and religious obligation demands should be amended. Since that period, nothing of importance on the subject has been added.

It appears indeed a serious evil to the poor, and a just cause of complaint among country practitioners. But the London Committee avow their incompetency to suggest a remedy, though they will exert their utmost interest to promote any generally approved plan that may be proposed. That both the evil and the remedy may receive all the elucidations which they so strongly claim, it is strenuously advised that every opportunity be sought of directing the attention of members of parliament, to inquire, personally, and investigate the real sources of the nefarious and disgraceful scenes which are perpetually, and almost universally, passing in every country parish, in which the health and comfort of the poor are the certain sacrifice. This will be laying the surest foundation for redress.

Finally, the Committee recommend, most earnestly, that a petition be written (*not printed*) on parchment, agreeably to the form herewith given, and laid on the table of every county, city, or district medical meeting, throughout England and Wales, for the signatures of those present; that it be conveyed to neighbouring parishes by some confidential person for a similar purport; and that every individual subscriber should not only state his place of residence, but if he
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be a member of the Royal College of Surgeons, or of the Society of Apothecaries, to insert that distinction; and that when the petition has received all the signatures expected, it be formally requested of the representatives for the county, city, or borough, to present and support the same by their presence and votes in parliament when leave has been given for the introduction of the Bill.

The Committee have endeavored as briefly and perspicuously as possible to inform the medical public, in this Report, of the steps they have with undeviating steadiness pursued to attain the important object for which they were elected. In the execution of the task, they have had much prejudice to combat, many discordant opinions to reconcile, and have experienced no small degree of obloquy. They have persevered, however, conscious of the integrity of their intentions; nor do they entertain the least doubt of seeing their labors crowned with success. But they are aware, success depends not on their exertions only. Reflection, and a dispassionate retrospect of the past, must have convinced the supporters of the late Bill that any one formed on such principles, and embracing such complicated views, would never meet the approbation and countenance of the legislature, and must always encounter a formidable and dangerous opposition.

The Committee, therefore, submit the following Resolutions for consideration, in the confident hope that they will be found entitled to general approval and support.

The Resolutions proposed by the London Committee as the Bases of a new Bill.

1st.—That it shall not, in future, be lawful for any person, except those already in practice, to act as an apothecary, surgeon-apothecary, or as a practitioner in midwifery, in any part of England or Wales, unless such person shall have been first examined, and received a certificate of his being duly qualified for such practice: provided always, that no person shall be entitled to such examination until he has attained the age of twenty-one years.

2d.—That no person, excepting such as are actually indentured, or have commenced a course of medical studies, at the time of passing this act, be admitted to an examination for a certificate to practise as an apothecary or surgeon-apothecary, unless he has served an apprenticeship of not less than five years to an apothecary or surgeon-apothecary, and shall produce other testimonials of a sufficient medical education.

3d.—That no person be permitted to practise as an apothecary,

thecary, either alone or conjointly as a surgeon-apothecary, unless he has been examined as to his knowledge of medicine and pharmacy, by a board of medical practitioners, properly qualified and legally authorised for that purpose, and likewise for the purpose of examinations in midwifery.

4th.—That no person acting or having acted as full surgeon or apothecary in the army or navy, shall be liable to an examination, except as to his qualification in midwifery.

5th.—That no person, in future, shall be allowed to practise surgery alone, or conjointly with pharmacy and midwifery, until he shall have obtained a diploma from the Royal College of Surgeons.

6th.—That no person, in future, act as an assistant to an apothecary, or surgeon-apothecary, to compound and dispense medicines, without passing an examination in pharmacy, unless he shall have served an apprenticeship of five years to an apothecary or surgeon-apothecary.

7th.—That no female, in future, be allowed to practise midwifery, without passing an examination.

8th.—That every apprentice's indenture shall bear a stamp of twenty-five pounds.

9th.—That nothing herein contained be considered as preventing members of the Royal College of Physicians, or of the Royal College of Surgeons, or of the Society of Apothecaries, of London, enjoying the same privileges, and immunities, in their several branches of the profession, to which they are at present entitled.

(Signed)

GEORGE MAN BURROWS,
Chairman.

Bloomsbury-square,
Sept. 4, 1818.

N.B.—All communications and subscriptions are requested to be addressed to the chairman, by the first week in November. The petitions should be prepared and signed by the opening of the next session, and be ready to be presented to parliament when the Bill has been read the first time.

State of the Treasurers' Accounts of the Association of Apothecaries and Surgeon-Apothecaries, from June 30th, 1812, to September, 1813.

	£.	s.	d.
Subscriptions received	1956	14	10
Return from sale of Reports and Abstracts of Bill	35	2	0
	<hr/>		
	£1991	16	10
	<hr/>		

Disbursements as undermentioned :	£.	s.	d.
Printing and copying-----	316	3	0
Clerk and collector -----	32	3	6
Advertisements -----	101	18	1
Public and Committee meetings -----	44	6	0
Solicitor's bill for legal and parliamentary charges -----	185	15	0
Sundry petty charges, including paper, postage, carriage of parcels, &c. -----	90	2	5
	770	8	0
Balance in treasurers' hands	1221	8	10
	£1991	16	10

N.B.—Of this balance, 1011*l.* 14*s.* 5*d.* was expended, on the 18th of April last, in the purchase of an exchequer bill.

We, the auditors, appointed by the General Committee, have examined the accounts, and find the balance in the hands of the Treasurers to be as above stated.

(Signed)

JOHN HUNTER.

R. S. WELLS.

P. FERNANDEZ.

Sept. 3, 1813.

The Form for a Petition in support of the Bill intended to be introduced in the next Session of Parliament, and which is recommended to be copied and adopted by the Country Practitioners.

To the Honorable the Commons of the United Kingdom of Great Britain and Ireland in Parliament assembled.

The humble Petition of the undersigned
Apothecaries, Surgeon - Apothecaries,
and Practitioners in Midwifery, residing
in _____*

Sheweth,

That apothecaries, surgeon-apothecaries, and practitioners in midwifery, form the great majority of the medical practitioners of England and Wales, and are very generally entrusted with the medical and surgical care of the population of the kingdom :

That none of the above branches of the medical profession can be practised with safety or benefit to the community;

* The blank to be filled up by inserting "the county of _____," or "city of _____," or "town of _____."

unless

unless the practitioners acquire competent knowledge by some regular medical education:

That there is no existing law to prevent persons without any proper medical education practising in all or any of the above branches; and a great number of persons therefore, in every part of the kingdom, assume the character and exercise the functions of the apothecary, surgeon-apothecary, and practitioner in midwifery, who are wholly ignorant and utterly incompetent to the performance of the duties of the profession, whereby the safety and health of the community is endangered; the general character of the profession disgraced and brought into disrepute, and the interests of your petitioners greatly injured:

That it is essential to the preservation of the character of the profession, and to the interest of the community at large, that provision should be made for remedying the above evils:

That a Bill is pending in Parliament before your Honorable House, entitled "A Bill for regulating the Practice and Profession of Apothecaries, Surgeon-Apothecaries, and Practitioners in Midwifery, throughout England and Wales:"

That your petitioners verily believe if the said Bill should be passed into a law, that the evils and inconveniencies complained of by your petitioners will be remedied:

Your petitioners therefore humbly pray that the said Bill may be passed into a law, under such regulations and restrictions, and in such manner, as to this Honorable House may seem meet:

And your petitioners shall ever pray, &c.*

(*The Appendix to this Report in our next.*)

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

YOUR correspondent Obstetricus has expressed a wish that I would state clearly the distinguishing symptoms between those tedious cases of labour arising from spasmodic affection of the uterus, and those arising from rigid muscular fibre. I thought this had been done when I stated that "the patients most subject to spasm were weakly, or what are said to be nervous. The general symptoms, a frequent desire to void urine in small quantities; the os uteri little dilated, and during pain instead of dilating it contracts; and the spirits of the women are depressed." The laborious

* No names can be affixed to the petition by proxy.

cases arising from rigid muscular fibre attend strong young women, or those advanced in years with first children. To the symptoms of spasm I can add one more, viz. the child is in frequent motion, or, as the mother describes it, it worries.

I hope from this description every practitioner will be able to discriminate between the two cases. Obstetricus has mistaken my meaning when I said that I supposed opium would have no effect in cases arising from rigid muscular fibre: my idea was confined to the relief of the case.

I am, Gentlemen,

Your obedient Servant,

Ipswich.

WILLIAM SPARK, M.D.

P.S.—Should Obstetricus have another case of puerperal convulsions, will not opium *save* his patient better than brandy? I suppose those cases partake much of spasm.

For the Medical and Physical Journal.

An ACCOUNT of a RUPTURE of the UTERUS during LABOUR.

ON Thursday the 29th of July last, I was requested to inquire into the cause of death in a poor woman who had died in labour, undelivered, the day preceding. Upon calling at the house of the deceased with the view of making the necessary arrangements, I found the body in a high state of putrefaction, though life had been extinct little more than twenty-four hours. The belly was distended to an astonishing size; the thighs and legs were emphysematous and œdematous; vesications containing a colored fluid had arisen in various parts of the body; the face was swelled, and had become quite black: in short, the dead body exhibited the most disgusting spectacle I ever beheld.

In the course of that evening, in the presence of two other medical gentlemen, I examined the body. On making a puncture into the abdominal cavity, a considerable quantity of a most offensive gas escaped, which not only affected the air in the room in a most nauseous manner, but even that of the whole house. Upon dividing the abdominal parietes in the course of the linea alba, the fœtus presented itself to view, lying in the cavity of the abdomen, completely out of the uterus, across the brim of the pelvis, with the left side of its head upon the right ilium, with its breech and left thigh upon the left ilium, having its back inclined towards the pubes, and its belly towards the lower part of the spine. On raising the fœtus, the placenta was seen lying upon the anterior peritoneal surface of the uterus, which, as well as the child,

was

was completely expelled out of its cavity; in the pelvis, there was but a small quantity of bloody fluid. The *fœtus* was large in size, and showed evident marks of commencing putrefaction. The uterus was tolerably well contracted; as much so, in the opinion of the gentlemen present, as that organ usually is found a few hours after delivery. On making a further inquiry, a large laceration, the extent of the whole anterior diameter of the uterus, was observed about the middle of its body: through this opening, in the enlarged state of the uterus, the child and placenta had passed. The intestinal canal was inflated through its whole extent. The other viscera of the abdomen, as far as they were examined, assumed a healthy appearance.

From the attending midwife, and the patient's friends, I obtained some particulars of the progress of the labour, and other circumstances. This poor woman, *æt.* 35, was of a corpulent habit, the tendency to which had very considerably increased during her last pregnancy. She had born several children, and usually had lingering labours. She began to be in labour on the Monday evening preceding, and early on the Tuesday morning, the midwife was sent for, who arrived about five o'clock. Before the arrival of the midwife, according to the representation of her friends, she was in strong labour. On examination, the midwife could not determine the presenting part of the child; the os uteri was a little open, and the membranes entire. The pains continued to increase; and after some hours the membranes either gave way spontaneously, or were ruptured. After this, the midwife felt some part of the child very high, which she believed to be the head, and waited patiently in expectation of its descent. As this poor woman had, in her former labours, suffered considerably, the midwife's apprehensions were not excited by the child's not advancing. About noon on Tuesday, the patient complained to her sister, after a violent labour-pain, that *her burden* had suddenly risen much higher; that she had a pain about her heart, (as she said) with very considerable difficulty of breathing, and a sense of suffocation. From this time, the regular pains almost ceased; but the poor woman complained of great uneasiness in the belly with the sense of suffocation; yet she was not entirely prevented from moving about. Shortly afterwards she was seized with vomitings of a black offensive substance, which continued at intervals during the remainder of life.

Thus hour after hour passed away till the next morning, the midwife being in constant attendance, and occasionally making an examination, but found no advance in the labour. Early on the Wednesday morning, the belly was observed to
be

be swelled more than usual, and after a while symptoms of a convulsive nature made their appearance; upon which, the midwife requested the assistance of an eminent practitioner, but before he was able to see the patient, she had breathed her last about noon on Wednesday.

In this case, rupture of the uterus occurred from the contractions of that organ upon the child in an adverse position; and the opening was sufficiently extensive to allow of the sudden passage of the child and placenta into the cavity of the abdomen, after which the uterus contracts itself. Under this unfortunate accident, it rarely happens that the child is entirely protruded out of the uterine cavity: it commonly is found partly in the uterus, partly in the abdomen. It also seldom happens that a patient lives so long after the accident as in the present instance: her continuance under her sufferings might possibly be owing to the perfect escape of the child from the uterus, and to its subsequent contraction. I enquired particularly respecting any appearance of external hemorrhage, and was answered that there was very little colored discharge, but that little was very offensive. The contracted state of the uterus explains a want of hemorrhage. In this instance, after the accident had taken place, and the uterus had contracted itself, delivery by the natural passages would have been impossible; the patient must have been left to her fate.

I will make no comments on the practice a judicious operator would have pursued had he been called before the rupture of the membranes: the very nature of the presentation would have determined that point. Difference of opinion has existed in the minds of medical men as to the best practice under cases of rupture of the uterus: for my part, immediate delivery by turning the child, when that is practicable, seems the only alternative offering a chance either to the mother or child. In the above case, the accident was not suspected.

An ACCOUNT of an ABDOMINAL PREGNANCY.

In the beginning of July last, Mrs. P. æt. 40, presented herself to the physician of a public dispensary for relief under a violent diarrhœa of long standing, attended with considerable pain in the abdomen, and general emaciation. She, however, did not then disclose any of the circumstances hereafter to be detailed, which would have afforded a clue to the real cause and nature of her complaints. Some medicines were directed for her, and she was desired to attend again. A few days afterwards she died; and having always
supposed

supposed herself, contrary to the belief of her friends, to be pregnant, she had given orders that her body should be opened after death to ascertain the fact, or to determine the cause of her singular symptoms. Being in low circumstances, the body was removed to the poor-house of the parish in which she died, and the surgeon employed by the parish, who had never seen or heard of the case during life, was requested to inspect it. Upon opening the abdomen in the usual manner, there appeared in that cavity evident marks of long-continued inflammation; the peritonæum lining the abdominal muscles was closely and pretty generally adherent to the omentum and intestines, particularly at the lower part and on the left side; the omentum was altered from its natural appearance, was darker colored, and looser in its texture. From its general adhesion, the omentum could not be reflected upwards; but with little difficulty it was separated from the parts underneath, and this separation exposed a cavity containing numerous bones of a well-grown foetus in a very putrid state, lying huddled together, but separate from each other, and intermixed with them a small quantity of an offensive dark-colored fluid. Even the bones of the head and of the pelvis were detached from each other. The bones being removed from their situation, and the cyst containing them cleaned out, it was found that the posterior parietes of the cyst were formed of the colon, mesentery, and neighboring parts; and that its anterior parietes were composed of the omentum, and the adhesions of the peritonæum lining the abdominal muscles. The extremity of the fallopian tube was lost in the general mass; and at that point where the cyst was united to the colon, absorption or destruction of a portion of that gut had taken place, so that an opening into the cyst, and out of it from the colon, was apparent. The size of the bones determined the foetus to have reached the sixth or seventh month. The uterus itself was not in the least enlarged; the os uteri and the whole of its surface had a natural healthy appearance, as had likewise the right fallopian tube and ovaria.

From the husband of the deceased, and different individuals of her acquaintance, some interesting information has been obtained. This poor woman supposed herself to have conceived about the latter end of March or beginning of April 1812, for till near this time her catamenia had been regular, and she had been in good health; but after this time menstruation had disappeared. About nine years ago she bore a living child, and in the intermediate time had had two miscarriages. In the early part of this pregnancy she suffered greatly from sickness at stomach, violent pains in the
1 belly,

belly, and particularly from confinement of bowels; and after a time she found herself gradually increasing in size, chiefly on the left side of the belly. Towards the end of June, when she supposed herself nearly three months gone with child, she applied to a professional man for relief. At this time she complained of violent pain on the left side of the abdomen, striking through to the back; of sickness at stomach, and pain in the head; and obstinate confinement of bowels, upon which the strongest purgatives were found to have little effect. Even now there was a considerable tumor on the left side of the body. She told this gentleman she was positive she was with child, but that she was very different in her own feelings from the pregnancy preceding. The above symptoms were so violent as almost constantly to confine her to her bed for some weeks, and even to lead to a suspicion that she would miscarry. After a few weeks, however, she found herself somewhat better, and began to feel the motion of the child distinctly. This distinct motion was observed for six weeks or two months, when it ceased altogether.

A circumstance must now be mentioned to which she and her husband imputed many of her sufferings, but which a professional man will consider of little importance. Early in the month of June she was bit by a dog: this excited considerable alarm in her mind at the time, and the impression of her having sustained material injury from that accident remained to the day of her death.

In the month of August she removed from the neighbourhood in which she had lived, and bespoke a respectable midwife to attend her in her expected lying-in; and not long afterwards she sent for the midwife, supposing she was about to fall into labour, though not at her full time, in consequence of violent pains in the belly. These pains were so different from labour-pains, that the midwife told her she was not in labour. The midwife saw her several times under the same circumstances. For the relief of these pains, in September, another professional man was consulted. He found her complaining of violent pain on the left side of the belly, which was increased on pressure; the abdomen enlarged to the size of the fifth or sixth month of pregnancy; obstinate costiveness; and a disposition to general emaciation. For the relief of these symptoms, opening medicines and opiates were prescribed.

During the months of October and November, the midwife was repeatedly sent for in consequence of this poor woman having pains not unlike labour-pains, with a sensation of bearing down, and an occasional colored discharge from

from the vagina. There seemed, however, no disposition in the parts for labour, so that the midwife at length gave it as her opinion that the woman was not with child. About this time a prolapsus of the vagina took place.

In the beginning of December, she was again visited by the same professional gentleman, who found her under occasional pains not unlike labour-pains, with a colored discharge, and a sense of bearing down. On examination, he observed something external to the parts, which proved to be a prolapsus of the vagina: there was, however, no disposition to labour. The belly was considerably swelled and hard; the bowels confined: still the poor woman expressed a confident belief that she was pregnant and at her full time, but from the difference in her sensations, not having felt motion for some time past, she suspected the child to be dead.

These symptoms continued more or less till the beginning of February 1813, when a violent diarrhœa commenced, attended with pain, and further emaciation of body. Her evacuations in the early part of it were particularly offensive, numerous, and large; and pieces of putrid animal substances were observed among them; and at one time she passed by stool one of the ossa femoris. She now expressed a belief that she was passing the dead child by stool. From the time that the diarrhœa took place, her belly began to diminish in size, and the rest of her body to waste away.

These symptoms continued more or less to the time of her death in the following July; but she was able to crawl about in the open air till within a few days of that event, and to take nourishment.*

Old Jewry,
Sept. 6, 1813.

JOHN RAMSBOTHAM, M.D.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

THE following case having come recently under my care, I have taken the liberty to transmit you the particulars, not so much as possessing peculiar claims to your attention, as to prove the decided efficacy of medicine.

* It is to be regretted that Dr. Ramsbotham did not attend this patient during her life. As it is, we are indebted to him for the relation of such particulars as he could collect; and we know, that he took great pains to obtain information from every individual who could throw light upon the subject. If any inaccuracy in the statement has occurred, allowance must be made, especially too, as it is entirely owing to the exertions of Dr. R. that the case is recorded.—EDITORS.

— Ellis, a young woman of 20 years of age, I was called to see in my vicinity laboring under typhus, apparently of a peculiar malignity. Immediately on entering the room I complained of the excessive fœtor, and inquired as to the state of the bowels; and was informed that every thing passed away involuntarily. Her pulse was feeble and quick. Her complaint was constantly of the head, and very significantly putting her hands to the sides of her head. Her tongue (shown by tremulous attempts) was covered with brown fur, and approaching sordes on the teeth and gums. Her anxiety and restlessness was such that she would have picked off every species of clothing but for surrounding attendants; and a constant muttering delirium, with occasional paroxysms of violence. Her incapacity for conversation, or to hearken to any thing that could have been suggested to her, rendered her situation truly deplorable.

I advised that she should have infusion of tea liberally; opened the window, and desired it to remain so; put on a large blister upon the nape and shoulders; and gave Pulv. Antim. gr. xij. and Calomel, gr. vj. to be taken in honey every twelve hours. The first dose caused a profuse perspiration; the second acted usefully upon the bowels. She took four more such doses, and the feculent matter assumed a less diseased appearance gradually. At this period the head-ache had entirely left her; the motions were voluntary and relieving; the pulse firm and 86; the brown fur substituted by a greyish hue, but that moist, and confined to the centre of the tongue; looks distinctly at me, and smiles with gratitude; wants pen and ink to write to her father in Yorkshire. The day following I called to see that she had not relapsed, and found she had slept quite sound, and eaten several oysters.

I think I may affirm, without the fear of contradiction, that had this young subject been loaded with bark and opium, she would soon have ceased to exist; and allow me to acknowledge my small tribute of the incalculable obligations medical men in particular, and society in general, are laid under to the laborious exertions and judicious treatment recommended by Dr. Clutterbuck in such fevers.

I have the honor to subscribe myself,

Your's, &c.

EDWARD SUTLIFFE.

Bread-street Hill,

Sept. 8, 1813.

COLLEC-

COLLECTANEA MEDICA,

CONSISTING OF

ANECDOTES, FACTS, EXTRACTS, ILLUSTRATIONS,
 QUERIES, SUGGESTIONS, &c.

RELATING TO THE

History or the Art of Medicine, and the Auxiliary Sciences.

On the Heat evolved during Inflammation of the Human Body.

By THOMAS THOMSON, M.D. F.R.S.

THAT the heat evolved by the human body is very considerable, and that in cases of inflammation this heat is very much increased, are facts with which every body is acquainted; but I am ignorant of any attempt hitherto made to estimate the increase of heat that is given off in cases of inflammation. On that account I think it worth while to record an observation which I had an opportunity of making upon myself, during the course of last winter. It is far from determining the whole heat given off during the inflammation; but as it is at least an approach towards accuracy, and as I was at as much pains as possible, considering the situation in which I was at the time, I conceive the statement will add another and a curious fact to animal physiology.

During the month of January last, in consequence of walking about in rainy weather in thin shoes for a considerable part of the day, and afterwards sitting for several hours with wet feet, I caught a violent cold, which was attended with fever, and among other inflammatory symptoms a throbbing pain took place in the right groin, accompanied with swelling of the inguinal glands. To prevent this pain from proceeding to suppuration, I applied, for four days successively, and 36 times each day, two cotton cloths successively wrung out of cold water to the swelled part. The average temperature of the cold water employed was 40°. The cloths were removed when they felt hot; and from several trials this appeared to indicate a temperature of about 90°; so that each cloth, and the water which it contained, was heated at an average 50°.

The first cloth dry weighed ---- 530 grains

The second ----- 458

The first when wet weighed 1459 or 929 water + 530 cloth

The second ----- 1434 or 976 + 458

I made several experiments to determine the specific heat of cotton, but found it attended with unexpected difficulty.

T t 2

When

When cotton wool is employed it is so elastic and bulky that you are obliged to use a much smaller weight of it than of the hot water with which you mix it. This occasions great inaccuracy. When cotton cloth is employed, a considerable time elapses before you can mix it properly with the water, and this occasions uncertainty. I state, therefore, the results which I obtained with considerable hesitation. The specific heat of cotton, by my trials, is 0.53, that of water being 1. I shall therefore consider it as half as great as that of water.

We may, therefore, substitute for the two cotton cloths a quantity of water equal to half the weight of each. We may say, therefore, that 2999 grains of water were heated 50 degrees 18 times a day for four days together, making a total of 30 pounds troy heated 50° in the course of four days by the inflamed part. This is nearly the same quantity of heat that would have been requisite to heat $8\frac{1}{2}$ lbs. of water from the temperature of 40° to that of 212°. This amounts nearly to seven wine pints.

So that in the course of four days this small inflamed spot gave out a quantity of heat sufficient to have heated seven wine pints of water from 40° to 212°; yet the temperature was not sensibly less than that of the rest of the body at the end of the experiment. The inflammation, however, was gone, and did not again return.

Nor was this quantity of heat, considerable as it was, the whole that was evolved. Some was lost by the evaporation of the moisture from the wet cloth, which must have taken place to a certain extent, and some must have made its escape during the night, when the wet cloths were applied very irregularly, and at long intervals.—*Annals of Philosophy*.

Additional Observations on the Effects of Magnesia in preventing an increased Formation of Uric Acid; with Remarks on the Influence of Acids upon the Composition of the Urine. By WILLIAM THOMAS BRANDE, Esq. F.R.S. Prof. Chem. R. I.—Read before the Royal Society, June 3, 1812.

In a paper which I had the honor of laying before this society, about three years ago, and which is published in the Philosophical Transactions,* some cases are related, illustrating the effects of magnesia in preventing an increased formation of uric acid, and some experiments are detailed, instituted with a view to discover its mode of action.

Since that period, many opportunities have occurred, both

* For 1813, p. 106.

to Sir Everard Home and myself, of confirming its efficacy upon a more extended scale, and of ascertaining the efficient treatment of those cases in which magnesia is ineffectual, and in which it has even been found to aggravate the complaint.

To bring forward additional evidence in favor of the use of magnesia, and to distinguish the cases in which its use is indicated, from those where it is improper or hurtful, are the principal objects of the present communication, and will be considered in the two following sections.

Section I.

The following is the case of a gentleman who suffered from a calculous complaint, during which he was accidentally induced to employ magnesia, the effects of which he has thus described.

Case I.—About twenty-seven years ago, I felt a pain in one of my kidneys, particularly when in bed, which continued to increase during six months. I had likewise an occasional sympathetic pain in the testicles, and violent and excruciating pains in the left kidney now became frequent. These attacks were sometimes brought on by stooping to take up something; but at other times without any apparent cause. They lasted from twelve to twenty-four hours, and I obtained some relief from the application of warm flannels; but they always left me languid and relaxed.

On the fourth attack I consulted a physician, who imagined that my complaint had been induced by drinking cyder, in which I had formerly indulged. He ordered me weak Hollands and water for common drink, and prescribed the lixivium of tartar to be taken in broth. This medicine was persevered in for some time; but I found it gradually weaken my stomach, and impair my digestive powers.

About nine months after my first attack in the kidney, I walked from Hampstead to London after dinner, and on the following day, I clearly felt something pass from the kidney to the bladder, and suspected what it was. I took about a pint of Hollands and water, and on attempting shortly afterwards to void my urine, found that the passage was blocked up, but had scarcely time to consider of my situation before the obstruction moved forwards to within an inch of the extremity of the urethra: it remained there till the following evening, when, by the help of a small pair of watchmaker's forceps, I succeeded in extracting a stone, which was the source of the mischief.

It was jagged and rough, and of a deep brick-red color. I afterwards voided a considerable quantity of red crystalline sand.

My

My physician, who was apprehensive of a return of the disorder, desired me to purchase of Cadell an anonymous pamphlet upon the Stone and Gravel, and to observe the rules there laid down. This treatise particularly recommended the use of the alkalies. I therefore took the lixivium, and two bottles of Perry's solvent; but the red deposit in my urine continued, my loins felt weak, and when in bed very painful.

Being in the profession of the law, and much employed, I was under the necessity of leading a very sedentary life, which so aggravated my tendency to bile and indigestion, that I seldom could get above two or three hours sleep.

With a view to alleviate these symptoms, and not with any idea of its being beneficial to the stone, I resorted to magnesia, which I continued with little intermission for eight months in the dose of a tea-spoonful or two, every evening before I went to bed. The long vacation coming on, I gradually took more exercise, and used the cold bath. The tone of my stomach, at the end of the period I have mentioned, was so far restored as to induce me to set medicine of all kinds aside, except when any food or drink disagrees, when I occasionally resort to the magnesia. Under such treatment, the weakness and pain in my kidney left me, and the red sand entirely disappeared. I have since enjoyed a very good state of health, and am now in my fifty-seventh year.

If I occasionally make a little free with the good things of this world, my stomach reminds me of the improper use of the lixivium, especially when I am prevented taking my usual exercise.

The above case is important, not only as furnishing a striking and unprejudiced instance of the effect of magnesia, in counteracting the tendency to form uric calculi and gravel; but likewise, as demonstrating its efficacy where the alkalies had failed, and where the digestive organs had been injured in consequence of the use of such remedies: the time which has elapsed since the cure of this and other cases, without a relapse, is also strongly in favor of this mode of treatment.

Case 2.—A gentleman, twenty years of age, who had suffered from heart-burn and other dyspeptic symptoms, was seized, on the 1st of June, 1811, with a violent pain in the loins, and more especially in the right kidney, and during the night he passed a large quantity of red sand with his urine. On the 2d, with a view to relieve the pain, which had increased considerably, he took fifty drops of laudanum, and drank freely of barley water. The night was passed

more quietly; but on the morning of the 3d he was seized with a violent pain in the kidney, and with the usual symptoms of the passage of a calculus along the ureter. These continued with more or less violence till the evening of the 4th, when he became perfectly easy, and remained so till the morning of the 6th, when, with considerable pain and difficulty, he voided a calculus composed of uric acid, weighing nine grains. For several successive days his urine deposited a large quantity of red sand, and three very small round calculi were voided.

He was now directed to abstain from all kinds of fermented liquors and sour food, and to take a pint of treble soda water (containing three drachms of sub-carbonate of soda) daily. Under this treatment he continued to recover, and remained perfectly free from complaint until the end of August, when a copious deposit of red sand appeared in his urine: he had little pain in the affected kidney, but complained of almost constant nausea, or want of appetite. The soda water was increased to a pint and a half, and afterwards to two pints daily, and in the intervals he drank very freely of barley water.

Having persevered in this way for ten days without receiving any benefit, he was induced to make a trial of magnesia, of which he took one tea-spoonful night and morning in cold chamomile tea. In about a week, the state of his stomach was much improved, and the deposit in the urine proportionally diminished; and in three weeks every symptom of disease had disappeared.

In February, 1812, having persevered in the use of magnesia with little intermission, I was informed that the sand had returned, that increasing the quantity of magnesia had produced no good effect, and that alkalies materially aggravated his complaint, by disagreeing with the stomach and greatly increasing the urinary deposit.

On examining the sand, I found that instead of consisting as formerly of uric acid, it was composed of a mixture of the ammoniaco-magnesian phosphate with phosphate of lime. He was directed to abstain from magnesia and alkalies, and to adopt a plan of treatment which it is the object of the second section of this paper more particularly to explain.

The foregoing is a well-marked case of uric gravel with a strong tendency to form calculi, materially relieved by the use of alkaline remedies: it illustrates their usual effects when carelessly persevered in, and shows the advantage with which magnesia may in such instances be employed: it also exhibits the effect of magnesia and the alkalies, in producing the deposit

posit of *white sand* (or phosphates) in the urine, when the *red sand* (or uric acid) has been removed.

The cases which follow are selected, from among others, to explain the best mode of preventing the formation of white sand, and to show the most effectual treatment where it is a natural deposit in the urine, or where it has been induced by the incautious exhibition of alkaline medicines.

Section II.

The white sand so frequently voided by persons laboring under calculous complaints, was first analysed by Dr. Wollaston,* who found it composed of ammoniaco-magnesian phosphate, either alone or mixed with variable proportions of phosphate of lime. The use of acid medicines in these cases was also first suggested by the same able chemist; but although his valuable observations have been before the public for nearly fifteen years, I am not aware that any experiments have been made to ascertain what acids are best calculated to produce the desired effect, or to illustrate their mode of action.

Since my former communication, I have lost no opportunity of attending to this important subject, and hope that the conclusions, suggested by the following cases, will be deemed satisfactory, and that their application in practice may lead to useful results.

Case 1.—A gentleman, fifty years of age, who about ten years before had undergone the operation for the stone,† was attacked on the 14th of January, 1810, with violent pain in the right kidney and ureter, which lasted two days. On the 17th, these symptoms subsided, and were followed by those of stone in the bladder, which continued for some days; and although he had taken abundance of barley water and similar diluents, the stone showed no disposition to pass. On account of his former sufferings, this circumstance rendered him extremely uneasy; and on the evening of the 21st, he suffered several severe paroxysms of pain on attempting to make water. Under these circumstances, he was desired to take a purge, composed of two ounces of infusion of senna, two drachms of tincture of senna, and twenty grains of powdered jalap.‡ In
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* Phil. Trans. 1797.

† The stone extracted consisted of a nucleus of uric acid about the size of a pea, encrusted with a mixture of the phosphates. It was broken during the operation, but appeared to have been of the size of a pigeon's egg.

‡ I recommended this treatment in consequence of having heard
Sir

three hours this began to take powerful effect, and during the violence of the operation, he was so fortunate as to void the calculus with his urine: it weighed eight grains. On the 28th he again suffered pain in the region of the kidneys, and voided much sand, composed of uric acid, with ammoniaco-magnesian phosphate. He now took three half pints of soda-water daily, which materially increased the proportion of the triple phosphate, while that of uric acid was considerably diminished. Ten drops of muriatic acid were then taken three times a-day in water. The red sand now began to re-appear, and on the 4th of February he voided a very small uric calculus. The urine made after dinner contained more or less mucus streaked with blood, a symptom which was much aggravated by a slight excess in wine. On the 6th he left London, and employed no medicine until the 12th, when he returned in consequence of having voided a large quantity of the white sand.

Having observed the efficacy of carbonic acid in preventing the deposition of the phosphates, and having found it less liable than any other acid to induce a return of the uric gravel and calculi, I now directed him to take half a pint of water highly impregnated with fixed air, four or five times a-day, and to drink cyder instead of wine. On the 18th of February, his urine was less turbid than it had been for some months before, and on the 20th of March, having continued the use of carbonic acid, he had no remaining symptoms.*

In August his urine became again turbid, but by the use of vinegar and lemon juice at his meals, which acids, he now finds, have no tendency to induce a return of the red gravel, he succeeds in preventing this symptom.

Case 2.—On the 11th of October, 1812, the operation for stone in the bladder was performed upon a boy, eleven years of age, and four calculi were extracted, of which the largest was of the size of a small horse-bean: they were each composed of a nucleus or centre of uric acid, upon which the ammoniaco-magnesian phosphate was deposited.

Sir Everard Home states a case, in his *Surgical Lectures*, of a gentleman who suffered a bougie to pass so far into the urethra, that it could not be removed by any instrument. During the operation of a purge it was expelled with considerable force.

* I have several times examined the urine, with a view to ascertain whether any of the acids which were exhibited could be detected in that secretion; but the results of such experiments are so much interfered with by the very compound nature of the urine, that I have not hitherto been able to draw any satisfactory conclusions respecting them.

After the operation, the urine deposited a large quantity of white sediment, and some small pieces of red gravel were occasionally voided. He was now directed to take eight grains of citric acid dissolved in barley water, three times daily. Under this treatment the sediment in the urine was considerably diminished, but did not wholly disappear. The dose of the acid was gradually increased to twenty grains, by which means the sediment was only occasionally deposited, and consisted of little else than mucus. It was observed, that whenever the citric acid was omitted, even for twenty-four hours, the sediment was greatly increased, and this was constantly attended with frequent desire to make water, and other symptoms of irritation in the bladder. On resuming the use of the citric acid, the sediment always disappeared, and the irritation of the bladder subsided; and this happened so frequently, that no doubt could be entertained of the influence of the medicine on the composition of the urine.

This plan of treatment was continued for three months. At the end of that period, it was found that the urine had not the same disposition to deposit the phosphates as formerly: even when the medicine was omitted, the sediment was small in quantity, and not constant in its appearance. He was now directed to omit the use of the citric acid, and occasionally to eat oranges and other acid fruits. He continued this plan until the beginning of April, 1813: his urine was then quite clear, and he had no symptoms of disease.

Case 3.—In the month of October, 1811, a gentleman, thirty-four years of age, informed me that he had observed a white deposit in his urine during the whole of the preceding summer. He had taken considerable quantities of soda water, which he thought increased the sediment, and alkalies in any other form produced a very obvious aggravation of the complaint.

His urine was at all times clear when voided; but after a few hours, a white powder was observed to separate from it, and a film of crystalline matter formed upon the surface. The former consisted of phosphate of lime and mucus; the latter of the ammoniaco-magnesian phosphate.

He was directed to take one drachm of muriatic acid properly diluted, at divided doses, during the day; and it was proposed that he should pursue this plan for a week; but it was discontinued on the third day on account of its acting upon the bowels, and producing a frequent desire to make water.*

* In this and other instances the sulphuric and nitric acids were occasionally substituted for the muriatic; but they were found equally inadmissible.

On the 16th of October, he was advised to take two large glasses of lemonade daily, and to substitute claret for port wine, a pint of which he was in the habit of drinking daily. Under this treatment the symptoms produced by the muriatic acid subsided, but the appearance of the urine was not at first improved.

On the 20th, the film of triple phosphate formerly constantly observed in the urine began to decrease, but the white sand remained as abundant as before: he was, therefore, directed to take twenty grains of citric acid twice a-day, and to continue the use of acid drink, as formerly.

The additional acid at first disagreed with the bowels; but this effect soon ceased, and the sediment was only observed in the urine voided in the morning: he, therefore, took another dose of the acid every night. This plan was pursued with little intermission until the beginning of December. The deposition of the phosphates gradually ceased, and he remained in perfect health until the middle of May, 1812, when, after violent exercise, and taking more wine than usual, the white sand again made its appearance in great abundance; his stomach became extremely irritable; and the acids, which he had before employed with success, brought on considerable irritation in the bladder. The addition of ten drops of laudanum to each dose of the citric acid prevented this effect, and he was thus enabled to continue the acid, which in a fortnight relieved his complaint.

This gentleman informed me, that, whenever he omitted the use of an acid diet, or took much wine, especially port, his urine deposited the white sand and mucus for two or three successive days.

Case 4.—A gentleman, eighty years of age, who had twice submitted to the operation for the stone within five years, voided with his urine considerable quantities of white sand and mucus.

From the age of this patient, and the account of his case, there appeared little doubt that the calculi had been formed in consequence of a diseased prostate gland, in the manner described by Sir Everard Home;* and on examining them, they were found to contain no uric nucleus, nor indeed had there been any symptoms of disease in the kidneys, at any previous period.

This gentleman had been in the habit of taking soda water, from which he was now desired to abstain, with a view of putting him upon the acid plan of treatment. He was ordered to take eight drops of muriatic acid three times a-day in two

* Practical Observations on the Treatment of Diseases of the Prostate Gland, p. 39.

table-spoonful of water; but the third dose produced so much irritation in the bladder, and consequent increase of his symptoms, that it became necessary to adopt another treatment.

Lemon-juice, or a solution of the pure citric acid, when given in quantity sufficient to produce any change in the appearance of the urine, had the same effect as the muriatic acid.

As water impregnated with carbonic acid could not be procured, he was directed to dissolve, in separate portions of water, twenty grains of citric acid, and thirty grains of the crystallised carbonate of potash, and to take the mixed solutions during the effervescence. This quantity was at first only taken night and morning, but as it agreed perfectly well, it was afterwards repeated four and five times daily. Under these circumstances the appearance of the urine was soon improved, and both the mucus and the sand were considerably diminished in quantity. In six weeks the urine, when voided, was transparent; but a considerable deposition of the phosphates took place, when it had remained for some hours at rest. In this state he left London, and has since informed me that the sediment gradually diminished under the use of the carbonic acid; that his urine is never turbid; and that the irritation in the bladder has entirely subsided.

It did not appear necessary to detail the minutiae of the above cases: they have been selected with a view to elucidate the treatment of the disease, as far as it depends upon chemical principles, and to furnish the data upon which the following conclusions are founded.

1. That where alkalies fail to relieve the increased secretion of uric acid, and to prevent its forming calculi in the kidneys, or where they disagree with the stomach, magnesia is generally effectual; and that it may be persevered in for a considerable time without inconvenience, where the tendency to form excess of uric acid remains.

2. When the alkalies, or magnesia, are improperly continued, after having relieved the symptoms connected with the formation of the red sand, or uric acid, the urine acquires a tendency to deposit the white sand, consisting of the ammoniaco-magnesian phosphate and phosphate of lime.

3. The mineral acids (muriatic, sulphuric, and nitric) diminish or entirely prevent the deposition of the phosphates; but are apt to induce a return of the red gravel.

4. That vegetable acids, especially the citric and tartaric, are less liable to produce the last-mentioned effects, even when taken in large doses for a long time; and that carbonic acid is particularly useful in cases where the irritable state of the bladder prevents the exhibition of other remedies.—*Phil. Trans.*

CRITICAL

CRITICAL ANALYSIS

OF RECENT PUBLICATIONS

IN THE

DIFFERENT BRANCHES OF PHYSIC, SURGERY, AND
MEDICAL PHILOSOPHY.

Tracts on Delirium Tremens, on Peritonitis, and on some other internal Inflammatory Affections; and on the Gout.
By THOMAS SUTTON, M.D. of the Royal College of Physicians, late Physician to the Forces, and consulting Physician to the Kent Dispensary. 8vo. pp. 272. London, 1815. Underwood.

IN noticing the diseases treated of in the present work, we shall pursue the order adopted by the author. The first complaint which claims our attention is a variety of phrenitis, with which disease, indeed, it has hitherto been confounded, so much so that Dr. Sutton, we believe, is the only writer who has regarded it as a distinct malady. He names it *Delirium Tremens* from an essential symptom of the complaint. Now, as we find nothing in the history of this affection to induce us to separate it from phrenitis, would not the term *Phrenitis à temulentia* be more appropriate than the one suggested by the author? In all the cases he has met with, drunkenness, or indulgence in liquor, mainly produced the complaint; and if Phrenitis be proper as the genus, *à temulentia* will mark the species. Delirium and tremor occasionally constitute symptoms of typhus fever, and several other diseases in their latter stages, and on that account, in our opinion, render the term *delirium tremens* objectionable to designate a mere variety of phrenitis. It, perhaps, will be alleged that the disease in question cannot be a species of phrenitis, because the treatment to be pursued in the two affections is directly opposite; but this argument has no weight with us, when we consider that there is hardly a disease of importance, or a variety of a disease, which does not require very different treatment in its progress, or as it appears in a particular patient. Bronchitis acuta is not to be treated like bronchitis asthenica.

The merit of Dr. Sutton, however, neither consists in describing a new disease, nor in calling an old one by a new name: it rests upon separating a series of symptoms produced by a certain cause, from a well-known complaint, with which they have been confounded, and bad practice has
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in consequence been generally pursued. It has been usual to treat delirium tremens (as the doctor would have us term the affection) as phrenitis; but, during his residence on the coast of Kent, he found two modes of treating the complaint prevailed,—the one by bleeding and depletion, the other by opium. The latter practice was the most successful, but the practitioners who had adopted it could assign no reason for the faith within them: they administered it because they found it useful. “I know, from experience, (said a physician to whom Dr. Sutton applied for information on the subject) that opium is of great use in this disease, and that when sleep is procured, the patient more frequently gets better; but I have nothing to guide me to form an opinion from, as to what may be the state of the brain, nor in regard to the *modus operandi* of the remedy, than that the measure of its beneficial efficacy is by procuring sleep.”

The history of this complaint, as related by the author, is highly interesting: we have already noticed it in our Half-yearly Report of the Progress of Medicine, in the present volume, page 17, to which we now refer.

This accurate account is followed up by several cases which illustrate the author's treatment, and detail of symptoms. In the first, the patient had labored under acute rheumatism for ten days; and for three days previous to Dr. Sutton's visiting him had been very delirious, and without sleep.

“When I saw him (the doctor writes) he had a strait waistcoat on; of course might be considered to have been very ungovernable. He had been bled in the course of the day, and the blood was buffy; the bowels had been acted on freely; a stimulating composition had been applied to the head, and a blister between the shoulders: notwithstanding which, all the symptoms had become worse. The pulse was very quick: there were continual workings of the tendons, with considerable tremors, and profuse sweats. After making inquiry respecting the habits of the patient, and collecting all the information I judged to be necessary, I proposed to administer forty drops of laudanum in a draught every two hours, until sleep was procured. Three of these draughts were given in succession, when the patient

“* Dr. Saunders observed, that he knew no disease in which the pulse became so rapid, and recovery ensued, as in numerous cases of this affection; which perfectly accords with my observation: but the recoveries alluded to have been effected by the treatment which is about to be pointed out, the efficacy of which, and its preference to all others, Dr. Saunders has been confirmed in, from a long experience, and attentive observation. I never saw a case of recovery, when the pulse was very rapid, except by the employment of opium.”

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fell asleep, and continued so for some hours. I saw him again at the interval of sixteen hours: he was then collected; and, after recommending forty drops of tincture of opium to be given morning and evening, for some few days, I took my leave; and was happy to find, on future inquiry, that the patient recovered rapidly from that period."

We have not space to insert as many of these cases as we wish. The fourth is particularly interesting, because, for the first two days of the attack, the treatment had been conducted on the antiphlogistic and depleting plan, to some extent; but with an increase of the disease. On the third day, four doses of extract of opium in two-grain pills were given every two hours, when the plan not appearing to succeed, the case was considered hopeless; but on Dr. Sutton visiting the patient three hours after taking the last pill, he found him "in a profound sleep, the respiration quiet, the pulse full and regular, with neither tremor, subsultus tendonium, or hiccough; the contrary of which had been the case a few hours before. The patient was the next day completely tranquil and rational, and recovered without interruption."

The sixth case appeared so desperate and hopeless, that we shall insert it as an useful example to practitioners to resist the importunity of friends, which so often would have us quietly look on, and abandon a patient to his fate, without having recourse to vigorous practice.

"The patient was a robust young man, and much given to drinking of spirits. Two days previous to my seeing him, he had been bled largely, and blistered, and the bowels had been freely opened. Afterwards, opium had been given with tolerable freedom; notwithstanding which, the delirium had continued unabated, with uninterrupted sleeplessness. On my visit, it was agreed to give two grains of opium every two hours, until rest was procured. When I again saw the patient, he had, in the course of twelve hours, taken eight grains of opium; but as the friends were possessed with the idea of the impossibility of his recovery, they had, for several hours, laid aside the administration of medicine. During the interval of my visits, blisters had been applied to the calves of the legs. I now found the patient, after having been much exhausted by exertion, exceedingly restless, in a profuse clammy sweat, with tremors, a very constant subsultus tendonium, a pulse scarcely to be perceived, the countenance fallen, and the eyes muddy; the urine had been discharged involuntarily; and the patient was constantly occupied in picking the bed-clothes. Under such a state of things, the chances of recovery appeared to be little; but, as we were assured of the nature and origin of the disease, and had seen much beneficial effects from opium under some very unpromising circumstances of delirium tremens, it was determined still to advise its use, and to encourage the friends to hope that something favorable might yet ensue, by following

lowing the directions that would be given. It was then directed to give two grains of opium every hour, until rest was procured, which happened after the fourth dose, and the patient had a tranquil sleep of some hours. The next day I found him rational, his pulse free and not quick, the subsultus tendonum gone, the tremors much diminished, and he discovered some inclination for food. The patient took six grains of opium, in divided doses, for some days, and got, in a short time, into good health."

We shall now forbear quoting more cases, having, we conceive, already stated enough of the author's practice to enable our readers to judge for themselves. We need hardly warn them that it is of the last importance to ascertain the peculiar nature of the complaint, before they give a remedy which, in the doses recommended by Dr. Sutton, would probably prove fatal in idiopathic phrenitis; and we trust the doctor will pardon us if we hint that he has not altogether enabled us by his account of it to distinguish delirium tremens as a distinct disease. He seems chiefly to rely upon his knowledge of the cause, indulgence in drinking; but this, in many instances, is extremely difficult to discover. Even in cases where the patient is actually intoxicated, we have known the affection to be mistaken by an eminent practitioner for typhus fever; and this disease again we have seen affect a patient so remarkably, that he has been supposed by pupils at an hospital to be drunk. Phrenitis indeed attacks more suddenly, and with greater violence in the commencement, than is the case in delirium tremens; but we all know how vaguely the history of the accession of a complaint, especially when the patient is insensible or delirious, is communicated to the physician, who does not see him till several hours, or days, after the indisposition has commenced. Tremor then must be the leading diagnostic symptom, but this occasionally is observed in phrenitis, and often is present in other diseases. Another small distinction too, Dr. Sutton mentions as distinguishing this disease from mania, for the two affections have occurred in the same individual. "The mind in delirium tremens is occupied and worried about private affairs." Dr. Saunders also, whose acuteness of tact is universally acknowledged, has pointed out the motion of the hands as characteristic in delirium tremens. "He has often considered the motion of the hands in this state of disease, as if the patient might, with imperfect vision, be searching for things, and occasionally rapidly catching or avoiding them: such, for instance, as if in search for rats or mice, being things he wishes partly to lay hold of, and partly to avoid."

(To be continued.)

Edinburgh Medical and Surgical Journal.

(Continued from p. 248.)

IV. Case of Diseased Uterus, with the Appearances on Dissection. By T. SALTER, Surgeon.

THE symptoms were not very different from those which usually accompany diseased uterus: there was no discharge per vaginam, and the os tincæ was found free from disease. After an endurance of lancinating pains for six years and upwards, the patient expired.

Examination *post mortem*. "On the posterior surface of the uterus were found two tumors. The diameter of the largest, at its base, extended from a longitudinal line drawn through the middle of the uterus to its right margin. The other was situated a little to the left side, and nearer to the fundus uteri, and was about the bigness of a common marble. The whole uterus appeared red, and more vascular than natural, and vessels were observed ramifying on the surface of the tumors. On examining the structure of the largest tumor, its superficies, an eighth of an inch in thickness, resembled in color and texture the other parts of the uterus. The central parts were of a light color, and very hard; but no ligamentous bands were to be seen. The os uteri was in a healthy state, and the cavity free from disease."

This disease was suspected to be syphilis and cancer, but was a case of slow inflammation, which, possibly, would have been checked in its progress, perhaps cured, by a judicious employment of evacuants.

V. Complicated Case of Cancerous Stomach. By WILLIAM COOKE, Surgeon.

This disease, which ended in the death of the patient, appears to have been excited or increased by a particular position, taken with more celerity, perhaps, than a woman at 82 could bear. The symptoms were constant soreness of the abdomen, continual pain about the umbilicus, sickness, constipation at first for some months, and some time afterward diarrhœa with tenesmus irregularly.

" *Sectio cadaveris.* The greater curvature of the stomach, a mass of omentum resembling the pancreas in size and shape, and the transverse arch of the colon were united together, and formed an indurated substance. The coats of the former viscus were so extremely tender in the lesser curvature, as to tear by the weakest effort. Its cavity was considerably diminished. The cardiac half of the villous coat was slightly thickened and inflamed. In that portion of the greater curvature nearest the pylorus, the coats were greatly thickened, except where they were destroyed by a large ulcer. The circumference of this ulcer was so thickened and puckered up, that it resembled a purse.

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When this margin was put on the stretch, it measured from two to three inches in diameter; but when allowed to contract, it did not exceed one inch. In its contracted state, the depth of the ulcer was about an inch and a quarter. In some places, the ulceration shot beyond the principal boundary, and destroyed the villous coat; and whenever this occurred, it was also encircled by a ridge, corresponding in appearance with that round the larger ulcer. At the bottom were several dark-colored sloughs, and two openings by which it communicated with the cavity of the abdomen. One of these was nearly large enough to admit the little finger within it, and the other was capable of receiving a goose-quill. In two places the small intestines were thickened. I removed one of these morbid parts, which occupied about an inch of the ilium. The coats on one side were at least half an inch thick, hard, and had two openings through them, sufficiently large to allow a probe to pass with facility. At the caput coli was a mass of disease as large as the fist, which, on examination, I found to arise from enlarged glands, situated between the peritoneal and muscular coats, and varying in size from a pea to a large walnut. They were firm in structure, and variegated in appearance. The villous coat of this part was inflamed. The ulcer in the stomach extended to within half an inch of the pylorus, but did not affect the orifice in the smallest degree."

VI. *Case of Brain-fever following Intoxication, with some Observations.* By JOHN ARMSTRONG, M.D.

The disease, of which this case is a well-defined instance, has lately been examined with so much attention to its natural phenomena, with so little of the influence of hypothesis, and subjected to a treatment so generally successful, that it may be considered as an instance of the advance of a rational medical science. The case is related with minuteness, and, probably, precision; and the judicious use of stimulants, particularly opium, was followed by the most unequivocal benefit. One circumstance Dr. Armstrong dwells on with proper decision. It is the danger attending the employment of coercion or confinement in the furious delirium that accompanies this peculiar state of the brain.

VII. *On unusual Cases of Anorexy.* By B. GRANGER, Surgeon.

Some instances of extraordinary abstinence are here related, to countenance the possibility of the abstinence of Ann Moore. The subsequent explanation of this woman's case will supersede all observations upon them.

VIII. *On the dangerous Effects of Infusion of Tobacco administered in a Glyster.*

The power of the *Nicotiana Tabacum* we have frequently witnessed, but, like all other powerful remedies, it requires caution in the use. We have here a remarkable instance of the

the deleterious operation of a dose generally recommended, and usually employed, in enema.

An infusion of ʒij of tobacco in ʒviij of boiling water, was injected into the bowels of a young man suffering under colic and constipation. "No sooner was it administered, than he was seized with convulsions, became speechless, and died in an hour or two." Permission to examine the body could not be obtained, but there was no doubt in the mind of the practitioner who prescribed this enema, that it was the direct cause of death.

IX. *Case of Hæmatirrhæa, or Petechiæ without Fever, which terminated fatally in the Hospital of the 6th Dragoon Guards, at Piershill near Edinburgh.* By E. WALSH, M.D.

James Curry, private in the 6th D. G., 30 years of age, robust, dark complexion, of sober habits, and healthy, was attacked, on the 27th of December, 1812, with pain in the head, rigors, and sickness. In the evening these symptoms disappeared. After having slept well, early on the morning of the 28th he was alarmed by a spitting of blood. On being taken into the hospital, there was observed "an eruption of petechiæ, numerous on the shoulders, across the breast, and on the neck, where they were not elevated above the cuticle; a few, more prominent, appeared on the forehead and temples, close to the hair; and some, of a still larger size, were seen on the hairy scalp. There were scarcely any discernible on the inferior trunk and extremities. These maculæ were of various magnitude; the largest not exceeding that of a pea. Their color was a dark purplish brown, having a resemblance to, but more prominent than, those which sometimes occur in typhus fever. On inspecting his mouth, petechiæ were found few in number, but large and distinct on the tongue, palatum molle, and as far down the throat as could be seen. From these there was a continual oozing of florid blood, which, mixing with the saliva, occasioned a constant bloody spitting." The pulse was 75, soft and full, no thirst, skin cool but dry; neither head-ach, pain, or debility: but there was weight at the stomach, and inclination to vomit; and the bowels were constipated.

He took a saline draught, in which was dissolved a grain and a half of tartarized antimony. This vomited him, and he threw up four quarts of a chocolate-colored fluid, intermixed with coagula of blood.

The 29th. He had slept, and perspired copiously in the night. At day-break he vomited, and threw up considerable quantities of a chocolate-colored fluid, mixed with fluid and coagulated blood. Petechiæ increased, now forming clusters on the trunk, and spreading over the lower limbs, most nu-
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merously on the legs. Pulse 86, bowels still constipated. In the course of this day the bowels being acted on, the fæces presented a mixture of grumous blood, and were extremely fetid.

The 30th. "On inspecting his mouth, the tongue appeared covered with a thick brownish-red crust, yet round the edges, and at the tip, it was moist, and of a natural color. Firm tenacious clots of blood adhered like polypi to the velum pendulum palati. The maculæ in the scalp had become large, black, and felt almost like warts. His muscular strength had suffered a great diminution; his pulse became feeble, and more frequent; a peculiarly heavy offensive smell came from his body; and his urine was intensely red without sediment."

At noon, on this day, he had a copious fetid stool, in which was much fluid blood: his features now sank; his right eye became tumid and black as from a blow, and the pupil of the left was contracted to a point; but his vision was perfect.

At four P. M. he had a violent fit of vomiting, in which he threw up a larger proportion of fluid blood than before. His strength now rapidly gave way: his pulse sunk, and became thready and intermittent.

At eight P. M. he was comatose; and by nine was in profound coma, with stertorous respiration. His pulse rose, was full, and 60 in the minute.

The 31st. He continued totally insensible, evidently in an apoplectic state, and expired at four this morning.

Appearances on opening the body.—The dark red pustules penetrated through the scalp, and left an impression on the cranium as if the head had been wounded with small shot. The right temporal muscle was black, as if severely bruised. On elevating the calvarium, a large coagulum of blood (a table-spoonful) fell out: it had pressed on the brain under the left temporal bone. The contiguous vessels of the pia mater were turgid, and black; but the superior lobes of the cerebrum were not in a diseased state. The liver was not diseased, but the spleen was unusually small. Large, but not numerous, petechiæ were scattered along the duodenum; some, but still fewer, were seen on the small intestines; and none were found on the arch of the colon. On the pylorus and anterior cavity of the stomach, petechiæ were numerous; but the great left curvature and superior orifice were so thickly covered with them, as to have the appearance of being sphecelated.

Both the remote and proximate cause of this rapidly-fatal case are equally obscure. It occurred suddenly to a robust and

and healthy man, in the prime of life, without the intervention of any accident to which it could be attributed. Its seat was in the superior portion of the alimentary canal, gradually descending from the mouth downwards: it affected the urinary bladder, and ultimately extended to the brain, occasioning apoplexy and death.

X. A remarkable Case of Dislocation of the Atlas. By E. LAZZARETTO, Surgeon.

By violence, *ab extra*, the atlas was displaced from the foramen magnum; the corrugator-supercilii and occipito-frontalis were wounded. The symptoms were laborious breathing, rattling in the throat, dilatation of the pupil, slow and interrupted pulse, and paralysis of the lower extremities. The atlas was replaced, and the man gradually recovered.

XI. Case of Torpor of the Primæ Viæ, terminating fatally. By J. GREEN, Surgeon.

This is a remarkable instance of a complete insensibility in the stomach and bowels to the stimulus of many highly-irritating substances, occurring in an athletic man of 25 years of age. After many efforts had been made to excite vomiting, to procure evacuations from the intestines and urinary bladder, ineffectually, the patient died on the 18th of November, when he had been under medical treatment nineteen days. In this time he took 72 grains of calomel, 3ij of gamboge, 3iij of oleum ricini, 3j of jalap, 3iv of sulphate of magnesia, and 3iv of quicksilver.

XII. Observations on the Advantages arising, in some Cases, by bringing on premature Labour. By WILLIAM SANKEY, Surgeon.

The safety of this practice, when the operation is performed with care and judgment, and its occasional advantages, seems to be fully established in modern practice. Mr. Sankey has added to confidence by the detail of several successful cases in his own practice; but he candidly admits, and we entirely agree with him, that it cannot be decided whether the operation was absolutely necessary in any of these cases. It will be satisfactory to know, however, that the children were all born alive, and the mothers recovered without accident. In about three days after the evacuation of the *liquor amnii*, labour came on; but in one case fifteen days elapsed, and in that time the woman felt no other than mental uneasiness.

XIII. Pathological and Practical Observations.

These observations, written with an imposing air of research,

search, making only a part of an article, the continuation of which is promised, we, for the present, pass over, in order to resume it when the whole comes before us.

XIV. *Some Observations in reply to Dr. Edward Percival, on the subject of the Poison of Mercury.* By THOMAS BATEMAN, M.D.

In a statement of a case made by Dr. Bateman, in the Report of the practice of a Dispensary, the symptoms were referred to the deleterious action of mercury, the patient having been exposed to the influence of that metal in his avocation. Dr. Edward Percival, of Dublin, in a critical examination of the report of, and observations on, this case, by Dr. Bateman, refers the phenomena of it to the poison of lead; and infers that the diseases of gilders, &c. conjectured to arise from the absorption of mercury, are actually produced by the lead with which mercury is adulterated.

The object of Dr. Bateman's reply is to prove that the morbid appearances in the class of artificers who work much with quicksilver, are actually produced by the absorption of that metal, and not by the lead, with which it is assumed to be combined. In support of this opinion he cites the authority of Fernelius, Etmuller, and particularly Ramazzini, and shows that the mercury employed by the persons thus affected must be pure, or, if any lead remain or is mixed with it, it is not vaporizable; and that the train of symptoms produced by the absorption of lead, differ in character from the *tremores immedicabiles* resulting from the vapor of quicksilver.

We are disposed to think with Dr. Bateman, that a series of specific morbid actions are produced by mercury upon those who work with that metal, especially as gilders; but that they may, and are, often confounded with those arising from the absorption of lead.

XV. *On the Use of Purgatives in Purpura.* By WILLIAM HARTY, M.D.

This is a paper of considerable interest, inasmuch as it states a successful mode of practice, adopted in a disease, where, *à priori*, it would be deemed injurious and hazardous. In the two forms of purpura, the simplex and the hæmorrhagica, as depending, it might be presumed, on debility in the solids, and a dissolved state of the blood, nutritious diet and tonic remedies were indicated. Dr. Harty found, however, this practice unavailing, while the use of purges was successful in the most unpromising cases; and remarkably so in a delicate female, worn down by repeated parturition, poor diet, bad air, deficient clothing, want of cleanliness, and confinement to a cold damp floor.

MEDICAL AND PHILOSOPHICAL INTELLIGENCE.

Description of a Resinous Substance lately dug out of the Earth at Highgate.—By THOMAS THOMSON, M.D. F.R.S.

DURING the last attempt to make a tunnel through Highgate-hill, in the neighbourhood of London, a very considerable number of curious fossils were discovered. The beds dug through consisted partly of gravel and partly of clay. The number of shells thrown out, and the round masses of lime-stone, could not escape the most careless observer; but one of the most remarkable substances detected was a resinous body, in shapeless masses of various sizes.

The colour of Highgate resin is of a dirty yellowish light brown. It is semitransparent. Its lustre is resinous, and its surface smooth; though not perfectly so; but having the appearance of having been rubbed, as would have happened had it been mixed with gravel upon the margin of the sea-shore, or a lake.—Brittle; not so easily broken as common resin; but much more so than copal: softer than copal; has a resinous and aromatic smell, especially when heated; this smell is peculiar, though it has some faint resemblance to the smell of camphor.

When heated it melts, and may be rendered as liquid as water without alteration in its colour. It catches fire at the flame of a candle, and burns with a clear yellow flame, and emitting abundance of smoke, as is the case with other resins. At the same time it emits a strong aromatic colour.

When in lumps it is insoluble in all the reagents I tried, namely, water, alcohol, potash ley, acetic acid; except ether, nitric acid, and sulphuric acid, which act upon it more or less.

Ether renders it opaque, and white, and quite tender; so that it has lost its cohesion, and crumbles into powder upon the least pressure between the fingers. The ether at the same time dissolves a portion of it which it deposits, and becomes milky when agitated with water.

Nitric acid acts upon it slowly when assisted by heat, and partly dissolves it, and partly converts it into a red colored substance. The acid itself becomes red, and when diluted with water lets the resin again fall in white flocks. These flocks when dry are in the state of a light yellow-colored powder, having a bitter taste. I could not dissolve it in water; but it dissolved in alcohol, at least as easily as the unaltered resin.

Sulphuric acid readily chars this resinous body when assisted by heat.

When reduced to the state of a fine powder, alcohol readily dissolves a small portion of it, and lets it fall again when mixed with water; but alcohol is a bad solvent of this resinous body. The same observations apply to ether.

I cannot find that either potash or subcarbonate of potash dissolve this resin, though boiled with it for some time in the state of powder. This is the property which distinguishes Highgate resin from every other with which I am acquainted. Even amber is partially acted upon by alkaline leys, and tinges them yellow very speedily.

Nor do I find that acetic acid dissolves any perceptible portion of this

this resin after a week's digestion in it, when in the state of a fine powder. I even triturated them together for a considerable time in a mortar, and then boiled them in a glass tube, but no solution was effected.

I have not tried the action of oils upon Highgate resin; but from the properties above described, I conceive there is reason to presume that, like copal, it will not dissolve in any of them.

It burns all away before the blow-pipe upon a piece of metal without leaving any perceptible ash behind it, when we make choice of pieces quite free from any earthy matter attached to them.

Such are the properties of this substance, as far as I have examined them. They are sufficient, I think, to distinguish it from all the vegetable substances hitherto observed. It approaches nearest to copal and amber; but is distinguished from the first by its solution in alcohol, and its non-solution in potash ley; from the second, by its readily melting when heated, and by its melting without any perceptible change of its properties. Thus the chemical properties of this singular substance throw no light upon the source from which it was derived; and cannot, therefore, facilitate our inquiries into the revolutions which the southern part of this kingdom has undergone, and the various animal and vegetable remains so thickly scattered in its bowels.

Antimonial Acids.—No metal has been subjected to a more persevering examination than antimony. But its chemical properties are so difficult of investigation, that the most accurate and ingenious chemists have contradicted one another in their most recent experiments. Thenard found six oxides of antimony, Proust reduced them to two, and Berzelius makes them four. Theory is certainly in favour of the last opinion. The two oxides of antimony containing most oxygen possess, according to Berzelius, the properties of acids. He calls them *antimonious* and *antimonic acids*. The antimonious acid is white. The *calx antimonii clota* of the old pharmacopœias is this acid combined with potash, and containing an excess of acid. When boiled in water a neutral antimonite of potash is obtained, from which other antimonites may be formed. The antimonite of barytes crystallizes in white needles, and is not altered by exposure to the air.

The antimonic acid has a straw yellow colour. It is formed by heating antimony in nitro-muriatic acid. Berzelius has examined several of the saline combinations which it forms with the different bases.

The two acids of antimony have the property of combining together, and of uniting likewise with the other oxides of that metal. This makes it so difficult to examine the oxides of antimony with accuracy. (Berzelius, *Lärbok i Kemien*, ii. 159.)

Acid of Tin.—The peroxide of tin has been repeatedly considered as an acid by chemists. Bergman and Guyton Morveau have each published dissertations on the subject. Berzelius has lately examined the matter anew; and though he admits that it possesses some characters in common with acids, yet he thinks that they are not sufficient to entitle it to the name.

Acid of Tellurium.—The oxide of tellurium, according to the observations

servations of Berzelius possesses at once the characters of an acid and a base. Hence it is capable of combining with bases and forming salts, while at the same time it unites with acids, and forms another kind of saline compound. On that account it may be either called *telluric acid* or *oxide of tellurium*.

Sulphite of Copper.—There are two oxides of copper, the red and the black; the first composed of 1 atom of metal and 1 atom of oxygen, the second of 1 atom of metal and 2 atoms of oxygen. The red oxide refuses to combine with sulphuric acid. When the two substances are brought in contact, the red oxide of copper divides itself into two equal portions, one of which gives all its oxygen to the other; so that one half of the oxide is reduced to the metallic state, and one half converted into black oxide. This last half unites with the sulphuric acid, and forms common sulphate of copper. The black oxide refuses to combine with sulphurous acid. When the two substances come in contact, the black oxide gives out half its oxygen, and by this means is changed into red oxide, while a portion of the sulphurous acid is changed into sulphuric acid.

Sulphite of copper is of a red colour, and crystallizes. It may be obtained by mixing sulphite of potash and sulphate of copper together, or by passing a current of sulphurous acid gas through water, in which black oxide of copper is suspended. It is decomposed by heat and by boiling in water. According to the experiments of Chevreul, it is composed of

Red oxide of copper	63.84
Sulphurous acid	36.16

100

Dr. Thomson observes, that, this analysis cannot be accurate. It gives us, he says, 100 acid + 176.549 oxide. Now the weight of an integrant particle of sulphurous acid is 4, and of red oxide of copper 9. Hence if the two substances unite particle to particle, the compound must consist of 100 acid + 225 oxide. We learn from the experiments of Berzelius that sulphuric and sulphurous acids unite with the same weight of base. Now, according to him, 100 sulphuric acid unite with 183 of red oxide of copper. (*Ann. de Chim.* lxxvii. 83.) Hence 80 sulphurous acid would unite with 183 red oxide. This gives us 100 acid + 228.75 red oxide, which agrees very nearly with an atom of acid and an atom of oxide. Hence Dr. T. conceives it to be indisputably much nearer the truth than Chevreul's analysis. For Chevreul's experiments see *Ann. de Chim.* vol. lxxxiii. p. 181.

Chevreul obtained likewise a triple salt, composed of sulphurous acid, potash, and red oxide of copper. He procured it by mixing a cold solution of sulphite of potash with nitrate of copper. The triple salt precipitated of a yellow color. According to his analysis, it is composed of

Red oxide	0.9360
Potash	0.1556
Acid	0.6270

1.7186

A simple mode of obtaining a very intense heat.—Dr. Marcet, of Guy's Hospital, has lately discovered an easy and convenient method of producing, on a small scale, a degree of heat which has hardly ever been exceeded. The process consists in urging the flame of a lamp of spirit of wine by a current of oxygen gas. The apparatus required for the purpose consists of a tin vessel, or gas holder, from which a small jet of oxygen gas is forced out, with some degree of violence, by the introduction of water through a funnel one or two feet in length. If a diamond be exposed to the flame of a lamp, thus acted upon by the jet of gas, it burns, and disappears in a few minutes. Platina wire of moderate thickness, is instantly melted; and globules of this metal, weighing as much as four or five grains, can thus be obtained in quick succession. During this process of fusion, a scintillation of the metal is observed, as if it was undergoing combustion; but this appears to be owing to minute particles of melted platina, which are simply dispersed by the intensity of the heat. Iron wire is burnt by this means with a degree of rapidity and brilliancy which even exceeds that of Ingenhouz's striking mode of burning iron wire in oxygen gas; and small needles of quartz are readily melted and vitrified by the same means.

Officers of the Massachusetts Medical Society, elected at the annual meeting in June, 1812.

John Warren, M.D. *President.*

Joshua Fisher, M.D. *Vice-President.*

David Townsend, A.M.

Thomas Welsh, M.D.

Aaron Dexter, M.D.

Josiah Bartlett, M.D.

William Spooner, M.D.

Thomas Welsh, M.D. *Corresponding Secretary.*

John C. Warren, M.D. *Recording Secretary.*

John Fleet, M.D. *Librarian.*

John G. Cotten, M.D. *Treasurer.*

Hon. Oliver Fiske, Drs. Jonathan Osgood, Thomas Babbitt, Abraham Haskell, Austin Flint, *Censors of the District Society in Worcester.*

The Medical Society of London resumed its sittings for the season on Monday the 27th instant.

A medical practitioner of great respectability, and extensive practice in a central part of London, has requested, through our medium, to make known his wish to form a partnership, with a view of entirely relinquishing business at the expiration of a period thought sufficient for establishing his successor. A premium adequate to the advantages will be required, and to prevent unnecessary trouble, no gentleman need apply unless he can command 1800*l.* in the first instance.

Particulars may be known by applying to Mr. Royston, Princes'-street, Cavendish-square, either personally, or by letters post paid.

Dr.

Dr. Barton, whose Elements of Botany have been most favorably received in America, is preparing for the press, a Flora of the State of Virginia; a Prodromus of a Flora of the States of New York, New Jersey, Pennsylvania, Delaware, Maryland, and Virginia; a work on the Geography of North American Trees and Shrubs; an elementary work on Zoology; a volume on the Indians of North America; and on the third part of Collections towards a Materia Medica of the United States. Some of these works are speedily to appear!

Mr. Singer has in the press, "Elements of Electricity and Electro-Chemistry, being a synopsis of the existing state of electrical knowledge. It will appear at the commencement of the ensuing year.

Mr. W. Henley, Member of the London Philosophical Society, is preparing for the press a series of Chemical Tables, intended to exhibit the properties of all the present known bodies, the result of their union, the composition of the oxides, acids, and their compounds, with the effects produced by the action of heat, light, and electricity; the whole forming a complete abstract of the science of chemistry.

The following gentlemen have obtained the degree of Doctor in Medicine from the University of Glasgow within the last twelve months:—Mr. Rowland Lawrence, from England.—Mr. William George Burrell, from Scotland.—Mr. James Tennant, from Scotland.—Mr. George Forsyth, from Ireland.—Mr. William M'Keowan, from Ireland.—Mr. Alexander Brown, from Scotland.—Mr. William Penman, from Scotland.—Mr. James Kennedy, from Scotland.—Mr. Thomas Coulson Carpenter, from England.—Mr. William Walkinshaw, from Scotland.—Mr. Thomas Stoddart, from Scotland.

Medical School of St. Thomas's and Guy's Hospitals.—The Winter Course of Lectures at these adjoining hospitals, will commence the beginning of October, viz.

At St. Thomas's.—Anatomy and the Operations of Surgery, by Mr. Astley Cooper and Mr. Henry Cline.—Principles and Practice of Surgery, by Mr. Astley Cooper.

At Guy's.—Practice of Medicine, by Dr. Babington and Dr. Curry.—Chemistry, by Dr. Babington, Dr. Marcet, and Mr. Allen.—Experimental Philosophy, by Mr. Allen.—Theory of Medicine, and Materia Medica, by Dr. Curry and Dr. Cholmeley.—Midwifery, and Diseases of Women and Children, by Dr. Haighton.—Physiology, or Laws of the Animal Economy, by Dr. Haighton.—Structure and Diseases of the Teeth, by Mr. Fox.

N.B. These several Lectures are so arranged, that no two of them interfere in the hours of attendance; and the whole is calculated to form a complete course of medical and chirurgical instruction. Terms and other particulars may be learnt at the respective hospitals.

Anatomical Theatre, London Hospital.—On Friday, October 1, at twelve o'clock, Dr. Dennison, F.A.S. member of the Royal College
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of Physicians, London, will recommence his Lectures on the Theory and Practice of Midwifery, and the Diseases of Women and Children.

Anatomical Theatre, Bristol.—Mr. Thomas Shute will commence his Winter Course of Lectures on Anatomy, Physiology, and the Principles of, and Operations in, Surgery, on Friday, October 1, at eight o'clock in the morning.

University of Glasgow.—The Medical Lectures in the University of Glasgow, will begin on Monday, the 1st of November, at the following hours:—Institutions of Medicine, by Dr. Freer, at half past eight in the morning.—Surgery, by Dr. Jeffray, at ten.—Midwifery, by Mr. Towers, at eleven.—Practice of Medicine, by Dr. Freer, at twelve.—Anatomy, by Dr. Jeffray, at two o'clock in the afternoon.—Dietetics, Materia Medica, and Pharmacy, by Dr. Millar, at three.—Chemistry, and Chemical Pharmacy, by Dr. Cleghorn, at seven.

Clinical Lectures on the cases of patients in the Royal Infirmary, the first Lecture on Thursday, the 11th of November, at six o'clock.

Dr. Brown will commence his Lectures on Botany, about the beginning of May next.

Mr. T. J. Pettigrew, F.L.S. Member of the Royal College of Surgeons of London, will commence a Course of popular Lectures on Human Anatomy and Physiology, on Wednesday the 20th of October, at eight o'clock in the evening precisely, and they will be continued every Wednesday and Friday at the same hour.

Theatre of Anatomy, Windmill-street.—Plan of a Course of Lectures on Chemical Philosophy, by William Thomas Brande, F.R.S. Prof. Chem. R.I.—These lectures commence on the second Tuesday in October, at nine in the morning, and are continued every Tuesday, Thursday, and Saturday throughout the season, terminating in May.

The subjects comprehended in the course are treated of in the following order:

Division I.—Of the Powers and Properties of Matter, and the general Laws of Chemical Changes.

§ 1. Attraction, crystallization, chemical affinity, laws of combination and decomposition.

§ 2. Light and heat, their influence as chemical agents in art and nature.

§ 3. Electricity, its laws and connection with chemical phenomena.

Division II.—Of Undecomposed Substances, and their mutual Combinations.

§ 1. Substances that support combustion, oxygene, chlorine.

§ 2. Inflammable and acidifiable substances, hydrogen, nitrogene, sulphur, phosphorus, carbon, boron.

§ 3. Metals, and their combinations with the various substances described in the earlier part of the course.

Division

Division III.—Vegetable Chemistry.

- § 1. Chemical physiology of vegetables.
- § 2. Modes of analysis, ultimate and proximate elements.
- § 3. Processes of fermentation, and their products.

Division IV.—Chemistry of the Animal Kingdom.

- § 1. General views connected with this department of the science.
- § 2. Composition and properties of the solids and fluids of animals, products of disease.
- § 3. Animal functions.

Division V.—Geology.

- § 1. Primitive and secondary rocks, structure and situation of veins.
- § 2. Decay of rocks, production of soils, their analysis, and principles of agricultural improvement.
- § 3. Mineral waters, methods of ascertaining their contents by tests and by analysis.
- § 4. Volcanic rocks, phenomena and products of volcanic eruptions.

In the first division of the course, the principles and objects of chemical science, and the general laws of chemical changes, are explained; and the phenomena of attraction, and of light, heat, and electricity developed, and illustrated by numerous experiments.

In the second division, the undecomposed bodies are examined, and the modes of procuring them in a pure form, and of ascertaining their chemical characters, exhibited upon an extended scale. The lectures on the metals include a succinct account of mineralogy, and of the methods of analysing and assaying ores.

This part of the course will also contain a full examination of pharmaceutical chemistry: the chemical processes of the pharmacopœia will be particularly described, and compared with those adopted by the manufacturer.

The third and fourth divisions of the course relate to organic substances. The chemical changes induced by vegetation are here inquired into; the principles of vegetables, the theory of fermentation, and the characters of its products, are then examined.

The chemical history of animals is the next object of inquiry: it is illustrated by an examination of their component parts, in health and in disease; by an inquiry into the chemistry of the animal functions, and into the application of chemical principles to the treatment of diseases.

The course concludes with an account of the structure of the earth, of the changes which it is undergoing, of the objects and uses of geology, and of the principles of agricultural chemistry.

The applications of chemistry to the arts and manufactures, and to economical purposes, are discussed at some length in various parts of the course; and the most important of them are experimentally exhibited.

Dr. Ramsbotham will commence his Lectures on the Science and Practice

Practice of Midwifery, on Monday, the 4th of October, at his house, No. 9, Old Jewry. Pupils will have the advantage of a valuable museum.

Dr. Adams's hour of lecturing is ten o'clock, and not twelve, as was printed in our last.

Medical and Chemical Lectures, St. George's Hospital, and George-street, Hanover-square, will commence on Monday, October 4th, at the usual morning hours, viz. the Lectures on the *Materia Medica* and Practice of Physic at eight, and the Chemical at a quarter after nine o'clock. By George Pearson, M.D. V.R.S. Senior Physician of St. George's Hospital, of the College of Physicians, &c. —A register is kept of the cases of Dr. Pearson, in St. George's Hospital, and an account given of them every Saturday morning at nine.

Dr. Squire will, on Tuesday the 5th of this month, begin a Course of Lectures on the Theory and Practice of Midwifery, and the Diseases of Women and Children.

Dr. Hooper and Dr. Ager will begin their next Course on the Theory and Practice of Physic, Chemistry, and the *Materia Medica*, at the Theatre, 26, Cork-street, Burlington Gardens, on Monday, October 4th, 1813, at eight o'clock in the morning.

Three Courses are given every year, beginning in February, June, and October, each on the first Monday of the month.

Mr. A. Carlisle, F.R.S. F.A.S. Professor of Anatomy in the Royal Academy, and Surgeon to the Westminster Hospital, will begin his Course of Lectures on the Art and Practice of Surgery, and the Sciences connected therewith, on Tuesday, October 12th, at twelve o'clock, at his house in Soho-square.

The introductory discourse is open to all professional students, and the subject to be continued on Tuesdays and Thursdays at the same hour.

The diseases and accidents allotted to the province of surgery will be amply treated of, and illustrated by cases from the lecturer's experience. A compendious view of the animal economy will be adduced to illustrate the several processes of disease and of recovery.

The operations of surgery, and the anatomy of the affected parts, are to be demonstrated.

Theatre of Anatomy, Windmill-street.—Mr. Brodie will begin his Lectures on the Theory and Practice of Surgery, on Monday, October 4th, at seven in the evening.

St. George's Hospital.—Sir Everard Home will begin his Course of twelve Lectures on the principal Operations of Surgery (given gratuitously to the pupils of this Hospital) on Thursday the 14th of October.

METEO-

METEOROLOGICAL TABLE.

From August 25, to September 25, 1813.

D.	Therm.			Barom.		Hygrom.			Winds.	Atmos. Variation.
						Dry.	Damp.			
26	61	66	61	30 ³	²	22	35	30	N.	F... — ... C.
27	61	65	60	30 ²	—	21	26	22	NE..N.	F.. C.. F.. C...
28	58	63	58	30 ²	—	22	28	19	NE..	C.. — ... R..
29	60	63	59	30 ²	—	14	10	12	ESE.N.	F.. R.. F...
30	58	65	60	30 ²	—	14	26	24	NENW.	C.... F.... — ...
31	62	66	62	30 ³	²	15	20	15	NE E.	F.. — ... — ...
1	62	66	62	30	29 ³	14	10	—	S.E.	C.. R.. — ...
2	62	64	59	29 ⁷	⁸	8	—	—	SW.	F.. R. F...
3	59	66	62	29 ⁹	—	6	22	11	SE.	F.. R. F... — ..
4	63	54	61	29 ⁷	—	5	2	4	SW...	C...R...F...R...inN
5	60	64	60	29 ⁶	—	—	15	—	SW..	R...F...C...R... in N
6	59	60	55	29 ²	⁴	4	20	15	W...	R.... C.. F....
7	55	60	53	29 ⁴	⁶	15	—	16	W..	F... R. F....
8	49	53	50	29 ⁶	⁷	13	18	13	NW...	F.... R.. C.. F..
9	47	56	53	29 ⁷	30 ¹	11	20	13	NW..	F.... — ... — ...
10	51	60	57	30 ²	³	11	20	18	N..	F... — ... — ...
11	59	65	60	30 ²	—	16	20	12	SW...	F... — ... — ...
12	61	67	61	30 ¹	26 ⁹	9	25	15	SW...	F.. — ... — ..
13	58	65	60	30	—	25	35	16	NW..	F... — ...C...R... inN.
14	56	64	60	30	²	15	30	25	NW..	F.. — ... — ...
15	55	63	60	30 ²	—	16	20	15	SW..	F... — ... — ...
16	60	64	62	30 ²	³	6	4	3	W..	F... R. C.. F..
17	61	66	62	30 ³	—	6	13	10	NW..	F... — ... C..
18	61	65	61	30 ³	¹	10	16	12	E..	F... C.. F.. C.
19	59	65	60	30	—	9	25	9	SE..	F... — ... — ...
20	58	65	59	30	—	10	21	12	E..	F... — ... — ...
21	56	64	60	30	—	11	19	11	E..	F.... C.. F..
22	57	65	60	30	—	10	15	9	N..NE.	F... — ... R.. — F...
23	58	62	59	30 ¹	30	8	9	10	NE..	F... R.. — ... — ..
24	60	64	57	30 ¹	²	17	—	11	NE..	F... C.. F..
25	58	61	57	30 ³	²	15	—	11	NE..	F... C... R.

Quantity of rain from the 26th of August to the 25th of September, one inch $\frac{12}{100}$.

The general character of the weather in this interval has been as favorable for the harvest as in the preceding; and, though a greater quantity of rain has fallen, it has not been in a degree to impede the farmer in this important operation. The range of the mercury has been remarkably great, from 29² on the morning of the 6th, when the heaviest fall of rain that had happened for many weeks occurred, to 30³. This great and rapid fall of the mercury in the barometer, was preceded, on the 4th, by sudden stormy gusts of wind from the S.W. The degree of temperature has been sometimes below the usual standard of the season; on the 8th the thermometer was down to 45 at six in the morning, and probably, in some situations exposed from N.W. which was then blowing, to a strong wind some degrees lower.

Cholera seems entirely to have vanished in this interval, and a tendency to catarrhal affections, and rheumatism, to have arisen. Rubeola still is frequent among children.

Prince's Street, Cavendish Square, Sept. 26.

MONTHLY

MONTHLY CATALOGUE OF MEDICAL BOOKS.

A Clinical History of Acute Rheumatism, or the Rheumatic Fever. II. A Clinical History of the Nodosity of the Joints. By John Haygarth, M.D. 8vo.—Cadell and Co.

Particulars of the successful Treatment of a Case of Hydrophobia, with Observations. By Price Wynne. 8vo.—Longman and Co.

The Report of the London Committee of associated Apothecaries and Surgeon-Apothecaries of England and Wales, with the Resolutions proposed as the Bases of a new Bill. 8vo.—Callow.

Treatise on the History, Nature, and Treatment, of Chincough; including a variety of Cases and Dissections: to which is subjoined, An Inquiry into the relative Mortality of the principal Diseases of Children. By R. Watt, M.D. 8vo.—Longman and Co.

A Catalogue of Medical Books, containing the most modern and approved Works on Anatomy, Medicine, Surgery, Midwifery, Materia Medica, Chemistry, Veterinary Surgery, &c. &c. Corrected to October 1, 1813.—Highley and Son.

Anatomical Examinations.—A complete Series of Anatomical Questions, with Answers; the Answers arranged so as to form an Elementary System of Anatomy, and intended as preparatory to Examinations at Surgeons' Hall. To which are annexed, Tables of the Bones, Muscles, and Arteries. Second Edition; 2 vols. small 8vo.—Highley and Son.

Cullen's Nosology, or a Systematic Arrangement of Diseases into Classes, Orders, Genera, and Species; with accurate Definitions. (Translated from the Latin.) Foolscep 8vo.—Highley and Son.

A Medical Dictionary, containing an Explanation of the Terms in Surgery, Medicine, Midwifery, Anatomy, Chemistry, &c. &c. By John James Watt. Second Edition; foolscep 8vo.—Highley and Son.

A Compendium of Anatomy, or a concise and clear Description of the Human Body; with the Physiology or Natural History of the various Actions of its different Organs and Parts. Illustrated with engravings. Containing also an Essay on Suspended Animation, with the proper means to be used for the Recovery of Drowned Persons. By William Burke, Surgeon. Second Edition. 12mo.—Highley and Son.

NOTICES TO CORRESPONDENTS.

Mr. Gibbons' interesting case of the imposture of Anne Foulkes, will be inserted in our next Number; also communications from Dr. Sutton; Mr. James Atkinson; Mr. J. Webster; &c. &c.

Mr Jones is informed that the letter signed Dr. Douglas, of Manchester, though ingeniously written, was suspected to be spurious, and was therefore not admitted; it has been mislaid, or it would have been returned as requested.

The Editors some time ago engaged that a General Index to the Medical and Physical Journal should be given at the end of the 30th Volume. A single Correspondent has reminded them of that promise. They accordingly acquainted the Proprietors with the circumstance, and they have agreed, that as soon as five hundred Subscribers shall have sent their names as purchasers of the Index, to the publisher, at No. 1, Paternoster-row, the work shall be proceeded upon without delay. But the requisite expense is too great to be risked without such subscription.



Case of Tumor on the Neck.

Published Nov. 1863 by J. S. Water Paternoster Row London.

Designed by H. Draper

THE Medical and Physical Journal.

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Having a numerous family to rear under narrow circumstances, she had met and borne the inconvenience and difficulty of her malady with great fortitude. After two and twenty years' industrious exertions, she had managed to
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bring up her children. They were placed and settled in safety: of course she found herself at liberty to consult her own feelings, and, if necessary, to abide by any risque in relieving them. Whatever expedient she might choose to try, now solely implicated herself. With this view she sought advice, and the operation being adjudged indispensable, she submitted to it patiently.

This was at any rate an awful decision, and it may be presumed that to confront the terror of an approaching dangerous expedient, in the face of numerous unfavorable forebodings, and of as numerous friends and visitors, would require something superadded to ordinary courage; for the size and appearance of the tumor rendered the patient an object both of opinion and of curiosity.

The operation was, of course, painful in proportion to the large extent of incised surface. Care was taken in performing it to preserve as much skin from the base of the tumor as should afford a covering to the wound. The incision was begun in that part of it by which the effusion of blood would least incommode the track of the scalpel. The inequalities consequent upon the lobular structure of the mass, had impressed some deep indentations within the neck; and the weight and bulk rendered it both unwieldy and inconvenient in operating.

On extirpating the tumor, a considerable arterial branch was unavoidably divided, which on the first jet of blood, and in that situation, had a formidable appearance. It was promptly restrained by pressure of the finger, until the operation was so far advanced as to make it convenient to secure it. A ligature was applied before the base of the tumor was separated, to prevent the occurrence of hemorrhage.

The tumor being completely removed, the carotid artery was observable in its course up the neck, exposed and pulsating. The large corresponding jugular vein presented also its broad, thinner, and less conspicuous coat. This became an object of notice only when certain compressions from motions of the neck allowed it to appear full, or to be emptied.

The incisions were obliged to be carried in two or three angular directions on the neck and cheek, yet they formed eventually a compact cicatrix; and the parts being carefully attended to during the healing process, left no very particular deformity. They were united and well in five or six weeks after the operation. The mouth, however, was rather disfigured from a certain unavoidable division of the nerves, and of course from a corresponding abatement of their influence upon the muscles.

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The weight of the tumor was three pounds and nine ounces.

The patient had not any material bad symptoms during the cure.

The substance of the tumor consisted of a condensed smooth firm structure on the outermost lobes; and of a more pulpy, darker, greasy mass in the middle ones.

I have the honor to be, &c.

JAMES ATKINSON,

*Surgeon to His Royal Highness the Duke of York, Senior
Surgeon to the York County Hospital and Dispensary.*

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

IN looking over your Journal for the present month, I find that Dr. Yeats reserves to himself the liberty of choosing the time and season for publishing the case of Ann Foulkes.

That the proper time for publishing her case was the period when his paper upon Ischuria made its appearance, will be apparent to every one, I humbly conceive, who peruses the following statement—that his conduct towards me and others in not doing so has been very extraordinary, and that we must necessarily feel hurt at his endeavours to reflect by implication upon our professional conduct, must be equally apparent.

Early in the spring of 1812, I repeatedly heard that there was a most wonderful case of disease in this town, and that the subject of it, A. F., evinced the most pious resignation under sufferings almost unparalleled.

I knew not whose patient she was, or had been. Motives of professional curiosity induced me to call upon her. I first did so on Thursday the 19th of March, and found her suffering apparent uneasiness from a tumefaction of the epigastric region. She informed me it was occasioned by a collection of urine, which was occasionally evacuated by vomiting. That every second or third day the accumulation was so great as to oblige her to take an emetic, which always enabled her to discharge the urine by the mouth very freely; but that if she did not take the emetic, her sufferings were much increased.

This state of things, she said, had existed about twenty weeks; and that during the whole of that time she had not voided a drop of urine by the natural passage.

Her general health did not appear to have suffered so much as might have been expected, from such an extraordinary, and, I may add, almost incredible disease. Indeed it struck me as being wonderful that she evinced so few symptoms

symptoms of general illness, considering she had been so long confined to her bed.

This circumstance I wish to direct your attention to in a forcible manner. We all know how easy it is to feign numberless pains; but we as well know that long-continued visceral disease does universally show its effects in a direct and obvious manner.

Added to this, I have no hesitation in declaring that her digestion was at this time very healthy and perfect, from the well nourished state of the body, and from an inspection of well formed and healthy-colored fæces. It appeared to me very strange that these things could be so, whilst she complained of the dreadfully irritating effects of the discharged fluid upon the throat, fauces, and mouth. To satisfy myself upon this subject, I now thought it right to make every possible inquiry into the previous history of her diseases, and to pay great attention to these extraordinary symptoms. The more I did so, the more had I reason to fear there was some incorrectness in the relation of her story.

On the following day I called with a medical friend upon whose judgment I placed great reliance, and his astonishment was also excited.

We agreed to attend alternately at the periods of her taking the emetics. Previously, however, to doing this, we thought it essential to examine the state of the bladder by means of a catheter, and were *very much surprised* to find that no examination of this kind had been made in the early stage of the disease. To our great astonishment, both A. F. and her mother most obstinately refused to permit this simple operation. Our suspicions were then strongly excited, the more so, because they were very loud in their assertions of there being not a drop of urine in her bladder. They likewise affirmed that there had not been a drop of urine in that organ for several months. To strengthen this declaration, they assured us that Dr. Yeats, who had attended her very assiduously in the early period of her present illness, was of the same opinion. She was now attended solely by a druggist of this town, who, with the sanction and full approbation of Dr. Yeats, prescribed emetics, diuretics, &c. What steps were taken to assist in the ejection of the urine before Mr. Palgrave, the druggist, ordered emetics, I know not. Although it was represented that her sufferings were very dreadful at the time the urine first stopped, it was very extraordinary that her symptoms were not such as usually attend retention and suppression of the urine.

Upon a further and more accurate examination of the
parietes

parietes of the abdomen, I now discovered that the muscles of its lower part were always put into violent action, when the tumefaction of its upper part was most apparent, and in vain I requested that they might be relaxed. This, of course, led me to suspect, that the said tumefaction or inflation was in some measure dependent upon the action of these muscles, and I was certain that their action was principally voluntary. The truth of this suspicion was made very apparent some time afterwards; I happened to call at a period when she did not, or could not contract the muscles so forcibly, and the tumefaction had disappeared. Upon an examination of the epigastric region under these circumstances, I could discover no trace of visceral disease.

I had been assured the swelling always increased in proportion to the supposed accumulation of urine; but at the time I now allude to, she had not vomited urine, according to her own report, for some days, and I could only account for the absence of the swelling, by the quiet state of the muscles below. The hypogastric region was at this time fuller than usual, and I suppose she was incapable of practising her common habit of blowing out the epigastric region, owing to there being an unusually full state of the urinary bladder.

I had the less reason afterwards to be surprised at Dr. Yeats' believing that the tumefaction was now owing to a real collection of urine, because he did, in the most positive and unequivocal manner, declare his utter disbelief of the possibility of any person being able to cause such an inflation as I constantly witnessed, whereas nothing can be more easy.

There was no doubt of the nature of the fluid which the girl and mother positively asserted she (A. F.) vomited up. It was clearly urine. It now remained to be proved that such fluid was actually discharged by vomiting.

My friend went to her house on Saturday morning the 3d of April; her mother said she had just swallowed the emetic, and that it was beginning to operate. He staid a considerable time, during which she appeared to be very sick and retched often, but neither urine, nor any thing of an urinous smell was brought up. With much persuasion he induced her to swallow some warm water; this returned by vomiting, but quite free from any admixture of urine. He then left her, perfectly convinced of the incorrectness of the whole story, as he was before assured of its utter improbability.

A few days after I went to the house, whilst she was said to be under the operation of an emetic. When I entered the chamber, her mother shewed me about half a pint of fresh, transparent, and apparently healthy urine, free from
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the least admixture of mucus or any other fluid or solid matter, which she informed me her daughter had just vomited up. On looking at it, I felt quite sure it could never have been discharged from the stomach or throat of a person under the influence of an emetic, because of the total absence of that matter, which must necessarily be in the stomach, throat, or mouth, of every living person. This quantity was, however, very small, compared to that which I had been informed always came up when an emetic was taken; I therefore waited patiently for more urine to make its appearance—she professed to be very sick, but none came.

Her mother then told me it was not a vomiting day, and that some days she did not vomit up the urine so freely as she did on others; contrary to the story they first told me, when it was not supposed I should be sufficiently inquisitive, to insist upon seeing this urinous matter vomited.

At this time the mother likewise expressed a hope that I was satisfied what she had showed me was urine. I certainly was, but equally so, that it had been discharged from the body in the natural manner.

To put the matter to rest, I now spoke in a very decided manner, about the propriety of allowing a catheter to be used. I pledged myself that she would be cured by it, but no persuasion was of any avail. I afterwards called at the house, and expressed such displeasure at their continuing to refuse the assistance which I offered to procure, as made them endeavor to excuse themselves under the cloak of religion.

Upon offering to send for Dr. Yeats, or any other medical gentleman they might prefer, in order to make the examination with the catheter, they now told me it would be of no use, because they were both determined not to submit to it—being quite sure it was wrong to try to take the work out of the hands of God, who had thought fit to afflict her in this very extraordinary manner: and both A. F. and her mother declared they thought it the duty of the former to wait God's time for bringing about a cure, if it was ever to take place. They appealed to me upon the harshness of my conduct, in appearing to disbelieve a person, who was so generally respected for the piety of her character; and said, that I ought to be ashamed of myself, (or words to that effect,) for withholding my assent to those reports which Dr. Yeats, and many other persons, implicitly believed, upon their simple assertion. This determined me to inform her charitable supporters, and the overseers of her parish, of my doubts respecting the veracity of her story;—and I hinted to them what was my determination, in case
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their

their free consent was not soon given, to the proposal above stated. I was, however, prevented from doing so, by receiving information from the mother of A. F. of a great change in her daughter's complaints. She was said to be seized with symptoms of common fever, which was accompanied with apparent stupor, of two or three days duration, and at the close of this symptom, the urine found its way from the stomach to its proper organ, from which it has been regularly discharged to this time. I once saw her during this declared stupor, which I considered as deceptive, from the absence of those symptoms which are its usual concomitants; neither was any change or derangement of the urinary organs apparent.

Before the asserted return of the urine to its natural channel, I felt fully assured that a proper examination of the bladder would prove the total falsity of A. F.'s tale, and upon that account I thought it my duty to insist upon its being made. Probably the parties concerned well knew the same. Nay, I add, it is very unlikely that a case so painful as retention or suppression of urine has ever existed, in which the sufferer objected to the proper methods of attempting to give relief.

I must now touch upon some circumstances connected with this second Tutbury tale.

It has been objected to my opinion of the case being a clear attempt at imposture, that there was no adequate motive. I am not bound to prove any motive, but I can venture to assert, that it would astonish most persons at a distance from Bedford, to learn what was the greatest quantity of provision, clothing, and money, sent to A. F.'s house in one month, previously to my declaring this opinion publicly.

But for the circumstance of Dr. Yeats being much implicated in the foregoing statement, I should have sent you the result of my inquiries into this reputed state of Ischuria long ago. With the greatest reluctance to become personal, I feel obliged, in justification of my own character, and the opinions of other medical men, to make some observations on the papers which have appeared in your Journals since April last. As Dr. Yeats all along did, and I suppose to this moment does believe, that this marvellous vomiting actually took place, he, of course, felt an obligation to controvert the opinions which I and other medical men gave upon the subject, namely, that the declarations of Ann Foulkes and her mother were untrue, and utterly impossible.

I, and many others, distinctly understood from Dr. Yeats, that he intended (or pledged himself) to prove both the truth
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and possibility of A. F.'s story. The abstract question of vomiting urine for a length of time was never thought of, unconnected with the peculiarities of the case in question. Is it not then very extraordinary, that Dr. Yeats should try to reflect upon our opinions, by implication, in a manner which is unfair? But for the occurrence of this case, his paper upon Ischuria would never have been written. When I first saw A. F., and during the whole time I visited her, previously to the asserted return of the urine to the bladder, she was attended by Mr. Palgrave, a druggist, of this town. It is strange to tell, that Dr. Yeats gave up the care of this interesting case to him alone. Mr. P., under the controul of Dr. Yeats, gave the emetics and gave the diuretics. Without calling in any of the medical men of Bedford to assist him in investigating this wonderful story, Dr. Y. rested satisfied that all he heard was true.

When my mind was decidedly made up on this subject, and whilst I considered A. F. as being more immediately under the care of the druggist, I told Dr. Yeats, in a truly friendly manner, that I was in possession of such facts as compelled me to consider her in the light of an impostor. He then seemed to think that my opinions were not founded upon facts. He assured me, that he paid so much deference to the assertions of the parties interested in this (as I supposed deceptive) affair, that he could not think of changing his opinions respecting her case. In addition to the facts which he thought would satisfactorily prove the truth of all this marvellous story, he is now in possession of the oaths of two persons who were in the habit of waiting upon or nursing A. F., which oaths I may hereafter show are to be regarded in a very suspicious point of view.

Not only did I inform Dr. Y. of my opinion, but I sent him a written statement, containing the substance of the foregoing history. He, in return, was kind enough to favor me with the perusal of a very long account of her case, which I understood was intended for publication; and, if I am not misinformed, has been already presented to a medical society for publication. If I had wanted any information to strengthen my previous opinion, or clear up any remaining doubts, the inspection of Dr. Y.'s case-book would have been amply sufficient; it corroborated, in a remarkable manner, what A. F. had previously told me about the absence of symptoms, which a better informed impostor would have spoken of when mentioning what took place at the time she said the urine first stopped.

The case now appeared so clear to me, and all those medical men with whom I had any intercourse or correspondence,

ence, that I could not think it probable Dr. Y. would venture to commit himself by writing upon the subject, except it was to acknowledge that he might have been imposed upon: still less, after what had passed, could I suppose it possible he would write upon Ischuria, or vomiting of urine, without giving the particulars of this case.

It must be evident to every one, that if I say A. F. is an impostor, because of the utter impossibility of her having vomited urine in the manner reported above, I have a right to expect that the man who controverts my opinion will do it in a fair and candid manner.

It was unpleasant enough for me, that in the simple discharge of my duty, I was obliged to incur the ill opinion of many well-meaning persons, whose good opinion I have been always solicitous to deserve; but that Dr. Y. could go such a round-about way to work to try to make a fact of what I suppose a fable, astonishes me much indeed. I have to assure you, that it was principally out of tenderness for his professional character, that I abstained from publishing my opinions of this case before; and I now feel justified in calling upon him, through the medium of your Journal, to give his history of the whole case, or acknowledge that he was imposed upon.

Dr. Y. might have chosen the time and season for publishing upon Ischuria; but I must repeat, that if I did not call upon him to publish this case, according to his promise, I cannot willingly submit to his assertions in your Journal for the present month. The point in dispute between him and me, and I believe between him and other medical gentlemen, is, simply, whether it was possible for Ann Foulkes to have vomited urine in the manner, and for the length of time, she declares she did. I do not act more unfairly towards Dr. Y. in relating the following story, than he has done towards others and myself, in writing his paper upon Ischuria, without giving the case of A. F. in connection with it.

A woman, who lived in Essex a few years ago, declared, as did her friends, that she was in the habit of sweating a vast quantity of living tadpoles, or animalculæ, of a visible size, which were seen very merry in the buckets full of fluid that was said to have exuded from her skin. This excited the wonder and curiosity of the neighbourhood. When it was understood that a medical gentleman believed it, many persons went to see this phenomenon from a distance, and made liberal contributions towards defraying the expence of washing and drying the great number of cloths that were used to absorb this unusual discharge from the skin, and to

furnish her with wine to keep up her strength. At last, a physician of great respectability insisted upon seeing these animals make their way through the skin. That could not be acceded to. I scarce need add, that, upon further inquiry, it was proved, the persons in connection with this woman supplied her with tadpoles from a neighbouring ditch. I am, Gentlemen,

Your obedient Servant,

Bedford, Sept. 9, 1813.

J. GIBBON.

To the Editor of the Medical and Physical Journal.

SIR,

IT may appear somewhat to border on presumption, to undertake to maintain opinions contrary to the tenour of one of the most respectable publications on a medical subject that I am acquainted with, whether we view it in regard to style, or the candor with which it is published, or the well-deserved reputation of the author, supported also as it is by some present authorities of deserved influence in the medical world: I refer to Dr. Haygarth's second edition on the subject of Acute Rheumatism. Such a weight of authority that has now engaged in this cause, and adopted the practice which is the particular subject of the volume, must tend much to fix those who may have been wavering in their opinions respecting the cure of that disease, and also those who can have little else to guide them, beyond a fair application of the practice which they are taught through lectures, or which they learn from books. For myself, I should have been very happy if I could have received information through so respectable a channel as the present author, which had perfectly convinced me. But as that is not the case, I feel more inclined to hazard my feeble opinion in a somewhat contrary direction to this respectable publication.

We have very plainly seen, in the instance of Sydenham, in what strong chains he has held the medical world, in respect to his opinions on the Gout, which was one of the last of his performances, when his reputation had arrived at the highest pitch of credit. And in the same way we may be likely again to be bound down for many years to a practice coming in the shape of most overwhelming authority.

The reputation of Dr. Haygarth has deservedly arrived at the highest degree of eminence; and if with such reputation he promulgates opinions, they are likely to make the deepest impression. My experience has, however, led me to conclusions different from the publication alluded to; and

and these conclusions, as they appear to me important, under the present state of the question, I shall most freely impart.

I have for many years, at various times, adopted the practice which Dr. Haygarth recommends; but I am sorry to say I could never conclude very favorably of it. It must not, however, here be understood, that I have seen much evil ensue from it; but it has never clearly appeared to me to be followed by any decidedly salutary effects. I am persuaded it may happen, that cases of acute rheumatism will be very short under various modes of treatment; but this does not prove the exact efficacy of any of these plans as a remedy for the disease generally.

Dr. Haygarth has given a case of a quick recovery from this disease, by the use of the Peruvian bark; and this very patient had been at some previous time ill of the same disease, under a different treatment, for many months. I will give a parallel case, under a different method of cure.

A robust seafaring man had been taken with a shivering, followed by an attack of fever, with pains in his limbs, three days before I saw him. When I visited him, he was in the most helpless state imaginable, with rheumatism, and swellings in every limb and almost every joint. Two years before this attack, he had suffered from the disease through fifteen months, which incapacitated him for any employ during that time. He had not been bled in the first attack; but I now directed twenty ounces of blood to be immediately drawn; he was also smartly purged with neutral salts. I saw him two days after this, he was much better. I however again directed blood to be drawn, and that he should again be purged. I visited him two days after this, when I found him up, with very little rheumatic pain; and in the course of a week he came to my house, a walk of some distance, and informed me he intended immediately to go to work.

This was as severe a case of acute rheumatism as I ever saw, and was as rapidly cured. If, indeed, we could always succeed so well in the cure of this disease, we might be said to have found out a certain remedy for it; but since this, I have never seen so quick a recovery from the same means, and therefore I do not think the plan pursued in this case entitled to be considered as a guide for the cure of this disorder generally. I think, also, I have seen very beneficial effects to follow perspirations; but they by no means frequently carry off the disease, and therefore I should judge sudorifics not to be always actual remedies for acute rheumatism.

I am very glad Dr. Haygarth has given this edition of his

book to the public, because I think he has been more explicit in one important point than he was in his former edition, at least so I am impressed, for I have not his former work by me. The tenor of that, in so far as my mind is impressed, was rather to dissuade from blood-letting, and to trust to the use of the bark. At present I am pleased to find that the bark is to be left off, in some cases, to give way to blood-letting, and after a time to begin it again. In regard to blood-letting, in so far as my opinion goes, it appears to me to be almost indispensable: I do not say that it is a positive remedy for the acute rheumatism, but I think it ought almost always to be used to prevent some of the serious consequences of the disease, if we were not quite certain that it would contribute towards its cure.

Early in my medical career, I happened to be placed in a neighbourhood where the prevailing practice in this disorder was that of copious bleeding and purging, with antimonial and saline medicines. I do not say that by this mode of treatment the diseases were not often very obstinate, but they certainly maintained the character of being less inimical to life than I have found them of late years; and, indeed, according to Dr. Haygarth's statement, acute rheumatism is full as fatal as fever, if in addition to this we take into the account those who are attacked afterwards with diseases of the heart, which are very numerous. I had the misfortune to be called to three rheumatic patients within a very short space of time, who died of the rheumatic phrenitis, and all of whom might with propriety have been bled. I am strongly impressed that these events would not all have happened, had that operation been gone through. I have also seen numerous cases of rheumatism of the heart, and only in one instance could I discover that the parties had been bled, and that one in no considerable degree. My experience, therefore, leads me to infer strongly, that these fatal events and serious diseases would have been mostly avoided by the liberal use of the lancet, or other means of losing blood. I am, therefore, as I say, glad to find Dr. Haygarth keep in view and recommend the remedy of blood-letting, more than his other publication appeared to me to do.

One evil arising from the use of the bark, in London and in its vicinity, is, I fear, the almost total neglect of the lancet in this disorder, which I trust will be more revived. Theoretically, in fact, there seems to be a contradiction between the remedies of the bark and blood-letting, and I am persuaded this seeming opposition has had great effect in preventing the use of the lancet.

Having

Having said as much as may be necessary at present on the subject of blood-letting, in so far as Dr. Haygarth and myself are concerned, I must now advert to antimonials and sudorifics. I consider, in an early stage of the complaint, that it is desirable to procure perspiration, nor is that difficult. With this intent antimonials, joined to saline medicines, may be very proper; for, as I have said before, I believe I have seen cases in which perspiration occasioned very material relief, though these are not numerous: but I have never seen perspirations continued for a long time attended with any advantage, if obvious benefit has not ensued within the first twelve hours; but when they have been protracted, they have appeared to be decidedly detrimental, and therefore not to be encouraged. The use of antimonials, therefore, beyond this period, seems to me to be of no other advantage, than in so far as they render the bowels soluble; but in so far as they encourage perspiration, by no means desirable: in fact, it has been my practice for some time absolutely to discourage them, by recommending any flannel wrappings to be laid aside, by prohibiting any warm drinks, and by desisting from the further use of antimonials. To curb this state of perspiration, I confess I have not seen the bark sufficiently effectual, and I am certain I have often seen it increase the inflammatory symptoms, and materially aggravate the pain. I might perhaps allow, that in such circumstances small doses of bark may be less detrimental than sudorifics; but that is all the praise I can give that medicine.

In regard to the use of anodynes, I can say nothing, from my own experience, that warrants me to conclude favorably of them generally, though I have occasionally seen some good effects; but from what I have observed, if 20 drops of laudanum is not attended with evident advantage, no better success will generally ensue from a larger dose, but frequently an exacerbation of the night paroxysm to a considerable degree. I have for many years agreed with Dr. Haygarth, and Dr. Currie of Liverpool, that acute rheumatism is one of the most tedious and intractable of diseases: I feel inclined, however, of late, much to modify that opinion, and to a certain degree to reject it.

The means of cure of acute rheumatism which I have hitherto mentioned, have appeared insufficient to satisfy me that something further ought not to be attempted. In respect to the management of the patient, in discouraging perspirations I considered that I had gained something, and therefore I not only recommended every local means to be avoided that were likely to increase that secretion, after a
time

time alluded to, but also to abstain from such medicines as might promote it. Antimonials and saline medicines have been, therefore, recommended to be laid aside; and the vitriolic acid, in the form of Infusum Rosæ, to be given. Epsom salts have occasionally been added to this; or if the bowels happened to be open enough, or other aperient medicines employed, six or eight grains of nitre were directed to be given with each dose. In this way I was better satisfied to conduct the treatment of the disease than by the use of antimonials or the bark. Lastly, I advanced another step, which was to adopt the use of local cold, which has been effected by camphor mixture, and which I was principally induced to use on account of the advantages derived from local cold in peritonitis, as stated in my tract on that disease.

This then, in addition to the other means which my observation has taught me to approve, appears to conduct the disease to a speedy and safe conclusion; and they altogether seem to me to be well entitled to be considered as positive remedies for acute rheumatism.

Under the supposition, therefore, that I was called immediately on an attack of this disease, I should recommend blood to be drawn to some extent, to open the bowels, and to give antimonial and saline medicines. On the following day, if the symptoms of general fever were not abated, I should again direct the use of the lancet. If the antimonial and saline medicines had produced copious perspiration without material relief, I should, on the third day, order them to be desisted from. I should now recommend the vitriolic acid, with constant attention to the bowels, and the use of camphor mixture to those joints which were the most painful; and all along prohibit the use of flannel and hot applications to the pained parts, or the warm bath; and to keep the body only moderately covered. I have been better satisfied with the use of a dose of four or five grains of Pil. ex Aloe cū myrrh every six hours, and an occasional purgative of a more active quality, such as castor oil or salts, by which the bowels are kept in a sort of constant activity, after the first days of the attack, than by the use of occasional active purgatives. Through this mode of proceeding I find very little difficulty in subduing acute rheumatism in its ordinary form, and I am able to state confidently a material change for the better in a week or ten days, if not a total subjugation of the disease.

I shall now mention some of the last cases of this disorder that have been conducted upon this plan.

Case 1st.—A person of about 35 years of age had been eight days ill of acute rheumatism. He had been bled in the

the commencement of the attack, the bowels opened, and saline antimonial medicines given. He had also taken some opium without relief, and was much wrapped round with flannel. During this time his pains had not abated, but the perspirations had been profuse, and he had been in a state which his friends thought approached to delirium on the night preceding my visit, and was not quite collected when I saw him. As I have a great dread of rheumatic delirium, I did not feel easy for the event of this case. I, however, directed all the flannel wrappings to be laid aside, sixteen ounces of blood to be taken from the arm, and a medicine composed of Infus. Rosæ, with a sufficient quantity of Magnesiæ Sulphas. On the next day the patient was somewhat better; had passed upon the whole a better night. I, however, judged he ought to lose more blood to the extent of eight or ten ounces, the other medicine to be persevered in; and, as the patient mentioned something of a cold application, I directed camphor mixture to be employed to the parts most in pain. On the following day my patient was much better, had passed a good night, and was in very fair progress in amendment. In four days after this, being a week from my first visit, I found him dressed, and rapidly recovering, which was afterwards uninterrupted.

Case 2d.—A woman who had suffered from an attack of that species of puerperal fever which I gave an account of in the Edinburgh Medical and Surgical Journal, and who had recovered under Mr. Butler's care, at Woolwich, in the manner I had described, was, about two months after that attack, seized with acute rheumatism. When I saw her she was in the most excruciating pain. She was much wrapped round with flannels, and in the most profuse sweat. The disease occupied the whole of her limbs completely. As she had suffered from diarrhœa under the puerperal attack to a considerable degree, it was not thought right to bleed her. The whole of the flannel wrapping was directed to be laid aside, and the camphor mixture to be applied to some of the pained parts first, and the bowels to be kept open by saline purgatives. I found from Mr. Butler, three days afterwards, that all my directions had been complied with, and that the patient was so much better as to be up and dressed, and in the course of a week she was so well as to entirely leave off medicine.

Case 3d.—A young gentleman, æt. 13, after being much heated by violent exercise, was taken, on the following day, with a cold shivering, succeeded by fever, with pains in his joints. On my second visit, I found the disease to be acute rheumatism, by the increase of pain, swelling in his knees

and ankles, and fever. As the swelling came on in the evening after I saw him, his friends wrapped them round with flannel, and by the aid of the saline mixture and James's powder he had been in a profuse sweat for sixteen hours, without any abatement of the symptoms. On my visit I directed the flannel to be discontinued, and the parts affected to be kept moistened with camphor mixture. Two large leeches were also applied on the back of each hand, which bled very considerably for many hours; and Epsom salts in Infus. Rosæ were directed to be taken. In two days the fever and pain were so abated that I found the patient up and dressed. A pill with three grains of Pil. ex Aloe cū Myrrh, to be taken twice a-day, was now directed; and the Infus. Rosæ with nitre. The patient had no further return of the disease, but continued to wrap the joints affected round with cloths, moistened with camphor mixture, for some time, at nights going to bed; and he was so sensible of the relief he experienced from this application, in comparison to his sensations under the flannel, that he was afterwards very desirous of using it. About a fortnight from this time I was desired again to visit the patient, who complained of some weakness in his ancles, and languor. Upon examining into his state of health, I found rather too much quickness of pulse, with a sharp stroke, and some palpitation at the heart. In the intervals of my visits, he had taken the bark in doses of ten grains three times a-day. I directed five grains of Pilula Ferri cū myrrh to be given twice a-day with some infusion of gentian, and the bowels to be kept open with castor oil, or equal parts of rhubarb and jalap; and the patient soon became better, and went to school; but, upon his again complaining of languor, he was sent to the sea side to bathe, where he most completely recovered.

Case 4th.—A gentleman, about 40 years of age, of a delicate frame, after visiting some damp apartments, was attacked with pain in the right shoulder, accompanied by a severe shivering and fever. Some years ago he had labored under acute rheumatism, and in one of the attacks had been confined six weeks. Latterly he had suffered some pains in his joints, which he had been able to remove by the help of a flesh-brush, which he applied also on this occasion, but without relief. He then had recourse to an old prescription, with volatile tincture of guaiacum and thirty drops of laudanum, to be taken at night, which had occasioned no relief. On the fifth day of this attack he sent for me. He had passed a very bad night; the shoulder was in great pain; he had a coated tongue, with much febrile heat, and a pulse of 108. He had also perspired very freely without relief, and had involved

involved the part affected in flannel, which only caused an aggravation of his pain. He had taken some castor oil on the day I saw him, that had acted on his bowels, notwithstanding all which the disease was gaining ground. I directed the flannel to be removed from the part, and six leeches to be applied, and encouraged to bleed freely, which, on the following morning, I found took place. The *Pilula ex Aloe cū myrrh*, in four-grain pills, was directed to be taken every six hours, with a medicine composed of infusion of senna and barley water. On the next day the patient was somewhat better, but had still considerable pain. I now directed the camphor mixture, which was sparingly used, but the patient was relieved. His fever was gone, and only a considerable degree of stiffness in the part, and numbness of the whole limb. I still persisted in advising a more free use of the lotion, and on my visit at the interval of a day, (the fifth from my first seeing him,) I found he had in some measure complied, and was then capable of using a pen, and elevating the limb from the side at a considerable angle. The patient's expression now was, that every time he used the lotion it loosened the joint; and he found himself so well as to require no further attendance from me.

These then are the histories of the last cases of acute rheumatism that have occurred to me; and the quick recovery of the patients justify me at least in the conclusion, that the disease could by no known means have been more speedily removed; and, so far as my observation can guide me, I conclude that neither the bark, nor antimonials, nor any other plan of cure that has hitherto been recommended, could have succeeded so well. This, therefore, stamps its value. Future observation, perhaps, may lead to a still more speedy and efficacious method of treatment, which I shall be happy to witness.

This hasty account, which, however, I hope is such as to be completely intelligible, I have been thus induced to give at the present moment, when the medical world are likely to receive information on the subject of rheumatism with increased interest, on account of Dr. Haygarth's publication. As I cannot accede to the practice he recommends, I think it my duty to communicate my dissent with every respect. I trust I have stated nothing that will fail in other hands; and if it should happen so, I am sure Dr. Haygarth will be the first to excuse me in this attempt to invalidate his practice in rheumatism. If this should completely succeed, he has such reputation in store as ought to satisfy any one, and which is built upon an immovable foundation, and has stood the scrutiny of time.

370 Portal on the Nature and Treatment of Apoplexy.

It might have been expected that I should before have taken notice of the author who has much preceded me in the use and recommendation of cold applications to the parts affected in the disease now under discussion; but I considered the most natural mode of statement to be that which connected the progressive stages by which I arrived at the treatment I now confidently recommend. Dr. Kinglake's book and opinions are before the public, which certainly settles his priority of claim in this respect. Without pretending to any discovery, my whole object is to put the public in possession of the most material observations I have made, through a series of years, towards the best mode of subduing acute rheumatism.

*Greenwich,
Sept. 25, 1813.*

THOMAS SUTTON, M.D.

For the Medical and Physical Journal.

On the NATURE and TREATMENT of APOPLEXY.

(Continued from p. 197.)

Memoir the Second, by PORTAL.

THE Observations on the Nature and Treatment of Apoplexy, which I communicated to the Academy of Sciences, and which were printed in their volume for 1781, have proved, that many apoplexies which had been thought serous, were nevertheless sanguineous; and hence conviction must arise, that the signs by which physicians thought to distinguish the sanguineous from the serous apoplexy, such as paleness of the countenance, weakness, smallness and slowness of the pulse, were illusory, and had led physicians to the most baneful practice in the treatment of this malady, since in place of prescribing bleedings, which were necessary, they gave vomits, which could easily prove fatal.

Facts so important, and furnished by anatomy, could not but be useful to medicine. I have become more bold in prescribing bleedings in cases of clearly-marked apoplexy, not in the sanguineous only, in the treatment of which physicians of all ages have agreed, but even in cases in which symptoms the most marked would have indicated to me the existence of serous apoplexy, before I had discovered my error, by the examination of bodies.

Different facts have convinced me that the practice of physicians, who prescribed emetics instead of bleeding in pretended serous apoplexies, was as fatal as the theory on which it was founded was erroneous, of which a judgment may

Be formed from some facts I am about to report, and of which I could unfortunately too easily multiply the number.

Observation the First.

I was called, in the winter of 1785, to M. Debré, receiver-general, who had been seized with apoplexy. He was very large and very fat. Having been for some time subject to numbness, particularly during the night, he had been advised to lose blood, which he had not done. After dining one day very heartily (for he was a great eater), he suffered a severe attack of apoplexy. Dr. L., who was called, prescribed an emetic without effect. The patient did not vomit, and remained in a profound sleep. I was called to him, and wished to take blood from the jugular, or at least from the foot, but not being permitted, I requested a consultation, and MM. Bouvart and Borie were called in.

We decided that the patient should not only be bled, but that he should be bled several times. He was in fact bled five times in three days, and, in proportion as his vessels were emptied, he found himself in a better state. At first he recovered the movement of the fingers, of the hand, and of the foot of one side only; and successively the movements and sensibility of the limbs and trunk of the same side. His reason returned by remarkable degrees. He spoke, saw, and heard but on one side only, for all the left side continued for a long time paralysed. He continued to take aperients and purgatives in the form of an apozem. He passed to the use of the waters of Balaruc, and at length was enabled to walk; but his left arm remained paralysed for a considerable time, and his tongue was much embarrassed in its movements. A visit to the waters of Bourbonne almost entirely re-established him, and he died three or four years afterwards of a different disease, at a very advanced age.

Observation the Second.

In 1790, M. Boutin, treasurer of the marine, aged 60, and very fat, experienced a violent fit of apoplexy at the end of a repast, at which he had eaten largely, and drank wine, spirits, and coffee. An emetic, which had been given him in a very considerable dose before I arrived, produced no effect. I bled him twice in the foot in a very short time; speech returned, and the respiration became more free, but half his body remained paralytic. Blisters, purgative apozems, and ultimately the waters of Balaruc, produced the best effect. The patient insensibly recovered the movement of his limbs, of his inferior extremity first, and then of his arm, which I have observed in all cases recover the last.

He entirely regained his health by the use of the mineral waters, and died three or four years afterwards on the revolutionary scaffold.

Observation the Third.

I was called, in 1794, during a severe winter, to M. de Fauveaux, aged 79, who had been attacked with apoplexy. Arriving promptly at his house, I found him senseless, but with a pulse strong and hard, having his respiration stertorous, and his visage red. Apoplexy was here unequivocally marked. The patient was taken as he left table after a repast, at which he had eaten heartily, and drank much wine and other liquors. I was at first inclined, in consideration of his great age, and the fear of indigestion, to administer an emetic; but reflecting on the imminent danger of the patient, and that he had a very short time to live, I thought that I ought not to lose any time by prescribing an emetic, which I had never known to succeed in a similar instance. I therefore bled him in the foot, to the great astonishment of the assistants.

This bleeding was so serviceable that he opened his eyes, moved the fingers of his left hand, and recovered more freedom of respiration.

Deglutition being now more free, I caused him to take an emetic, which produced the most beneficial evacuations. Speech returned to the patient, but he remained deaf, and paralytic of all the right side, from which he recovered in a short time by the use of blisters, of purgative apozems, and of the waters of Balaruc.

This patient was perfectly re-established, and died two years afterwards of a catarrhal putrid fever.

Observation the Fourth.

The citizen Gercy was conducted to prison with many other persons who were condemned to death by the revolutionary tribunal: he was acquitted.

A few days afterwards he was seized with apoplexy after a great repast. His respiration was embarrassed; his pulse contracted and small; his visage pale; his limbs very flexible, without motion; and he was generally insensible; yet deglutition remained in a slight degree. I gave him an emetic without effect.

I now did not hesitate to bleed him in the foot, in which I was so successful, that the patient passed almost instantaneously from a state of complete stupor and palsy to the most violent convulsions, which alarmed the attendants, who now considered him much worse than before, but I thought otherwise. On the contrary, I assured them that the citizen

Gercy

Gercy was better, knowing that the convulsions which succeed to paralysis are always less formidable than the profound trance (*assoupissement*), and that they may even be favorable. I learned this from reading, from clinical observations, and from experiments made on living animals; for I had found when we compressed their brain strongly, that they fell into a profound stupor, and that this stupor diminishing, was succeeded by convulsions.

I advised a second bleeding, which was performed. The convulsions ceased; the patient recovered a little recollection; he pronounced some ill articulated sounds, which in a short time became distinct; but he remained blind. Blisters and purgatives at first produced no effect.

I did not hesitate, however, to declare that I did not despair of the recovery of his sight, if he were conducted to Bourbonne, to Balaruc, or to Barége, persuaded as I was that the compression of the origin of the optic nerves, and of the nerves themselves, the blood-vessels of which I considered as gorged with blood, would be diminished in proportion as that fluid re-entered the circulation, and that vision would consequently be restored, which happened in fact a short time afterwards.

To these observations I could join many others which I have collected, and which would prove that emetics administered to some patients laboring under all the symptoms of serous apoplexy, and to others who were attacked immediately after a copious repast, had been without effect, and that recourse was necessarily had to bleeding; but I shall pass them in silence for the greater brevity.

An emetic administered in such cases is either useless or hurtful, and may even destroy the patient: in effect, if the compression of the nerves in the brain is strong, not only the limbs are paralysed, but the stomach also; then the emetic can exert no action, and is useless. But if any sensibility remains in the stomach, it produces vomiting; but the stomach and muscles of the lower belly, in contracting, force a reflux of blood towards the head; for in persons who vomit, all the parts of the head receive more blood than ordinary, of which we may judge from the redness of the face, the inflammation of the eyes, and bleedings from the nose, which often succeed vomiting: it is not, therefore, surprising that persons have perished under the operation of an emetic.

In this manner it often happens that women perish of apoplexy during parturition, of which I have seen several examples, and a remarkable one in a lady aged 19, who was attacked by a formidable fit, but which was dissipated by numerous bleedings prescribed by my colleague Hallé and myself, and by a successful delivery by citizen Marin.

It

It is an error to suppose that the apoplexy to which old men are so often subject is not sanguineous: the contrary has been proved by the examination of bodies of the most aged persons. Daubenton and Leroy, whose loss the Institute still deplores, died of this species of apoplexy.

The first remained paralysed five days in all his left side. The dissection of his body, at which I assisted with my colleague Cuvier, proved that this great man died from an extravasation of blood into the right ventricle. Daubenton had not been bled: his age; his visage more pale than red; his pulse, which was neither strong nor hard, did not appear to indicate blood-letting.

The citizen Leroy died also of sanguineous apoplexy, and very suddenly. My colleague Lassus and myself assisted at the opening of the body by the citizen Nicolle: we found a quantity of blood extravasated between the cranium and the brain, and much more in the ventricles of this viscus. We were informed that citizen Leroy had bled several times from the nose some days before his death; perhaps he might have escaped had he been bled at that time.

Thinness of apoplectic patients is no reason for not bleeding them; on the contrary, every thing proves that such patients have more blood than others, as Morgagni, Haller, and other physicians, have observed: thus I have bled, with the greatest advantage, patients extremely thin, under a severe apoplectic attack; of this the Marechal de Fitz-James, and the Abbé de Boismont, have furnished me with two examples well known in Paris. Could not every practitioner cite similar instances, if he had prescribed bleeding more boldly? But the apprehension that it may be injurious, sometimes in apoplexies which they suspect from unfaithful symptoms to be serous; sometimes under pretext of indigestion, which they gratuitously suppose to exist, or which they fear without reason; sometimes in relation to old age, which they falsely suppose to be destitute of blood; sometimes in consequence of the thinness of the patient; and, in fine, sometimes in consequence of his weakness, which is often only apparent: all these reasons, I say, prevent practitioners from bleeding in severe apoplexies; and very unfortunately for their patients, who for the most part die, or remain deprived of the use of all their limbs, or at least some of them, or blind, or deaf, or dumb, or with some other misfortune, which might have been prevented by a copious bleeding; which, by depleting the vessels, would have removed the compression on the origin of the nerves, if the congestion of blood was not too great; for it may be sufficient to render the largest bleedings inefficacious, which are now however the less indicated.

P.S. The

P. S. The following is another observation, proving that apoplexy may arise from excess of blood in the brain, although the face may be very pale.

M. Patricot, aged 68, of an ordinary stature, and rather large, who had been for some time deaf, and particularly of late in the right ear, on his return from the country, where he had passed some time, called at the Institute, to speak to one of its members, appearing to enjoy the best health.

He entered the house of Madame de la Rochefoucauld, with whom he lodged; he was called as customary to dinner, and was found in the middle of his chamber senseless, and almost dead. I was summoned instantly, and hastened without delay to his assistance, for the case required it, and M. Patricot was the ancient companion of my studies, and we were united in friendship. I was told that he had been found without sense and motion, particularly of the left side; he had recovered the movement of the right arm when I arrived, and he carried it continually to the right temporal region, as if he there experienced some pain; his respiration was short and sighing, his pulse very weak and undulating, his visage pale and cadaverous. M. Petitbeau, Madame de Rochefoucauld's surgeon, had been called, and had in vain attempted to give him an emetic; I ordered two blisters to his legs, and prescribed an irritating glyster, (*un lavement irritant*,) which the patient could not take. We caused him to inhale some volatile alkali, and endeavored without avail to make him swallow a few drops in some peppermint and orange-flower water; deglutition was intercepted.

Notwithstanding I was convinced that M. Patricot suffered under a most formidable attack of apoplexy, and although so many observations had apprised me, that paleness of the countenance, and weakness of the pulse, were no proofs of its not being sanguineous; and although different observations detailed in my memoirs as those of M. Boutin, of M. de Fourneau, and of others, had convinced me of the utility of bleeding, yet I dared not advise it in this instance; the body of M. Patricot being cold as ice, and his pulse very small and feeble, which had not been the situation of the other patients whom I have mentioned; they, on the contrary, preserved almost their natural heat.

I dared not prescribe bleeding, calling to mind this passage of Aretin's: "*Cæterum si frigiditate multa, et torpore vena minime scindenda videatur, subluenda alvus est;*"* but I

* De Morb. Anat. lib. i. cap. iv. p. 81.

observed,

observed, that if the heat should rise, and the pulse become more full, circumstances very likely to happen, I would advise the application of a dozen leeches to the neck. In effect, some time afterwards the coldness of the body disappeared, its heat returned, and the face of the patient, which had been extremely pale, became very red, crimsoned. Some leeches were placed on his neck, but they obtained little blood. I saw the patient early on the following morning in the last moments of his existence. He died an hour after my visit.

It may easily be imagined that I wished to examine the body, although I was persuaded that the apoplexy was sanguineous; it was necessary to be convinced by an observation, which was made by M. Boyer, my assistant anatomist to the Museum of Natural History, in presence of MM. Petitbeau, de Combettes, and Jean-Paul Martin.

No water was found in the cranium or in the brain, but a small quantity of blood was discovered in the ventricles; and a clot of black blood was lodged partly in an excavation of the right hemisphere, and partly in the right ventricle; all the other viscera were sound.

Remarks.—Wepfer also found a clot of blood nearly in the front of one of the hemispheres of the brain, in a woman seventy years of age, who, before the apoplectic attack which destroyed her, had experienced great defect in sight, and a loss of power in the movement of her tongue. The same author, one of the first who wrote on apoplexies from the observation of appearances after death, relates the history of an apoplectic, who, after experiencing a severe attack of gout, of which he was thought cured, was seized with a disease in his chest, which threatened a fatal phthisis pulmonalis; but he suddenly lost sense and motion; paleness of the face, and coldness of the extremities came on, whilst the pulse was strong, full, and frequent, and the respiration laborious. Wepfer did not venture to bleed this patient: “venam in debili tamen et brevi expiraturo tundere non ausus fui.”

Nevertheless, *convulsions* supervened, with foaming at the mouth, and stertorous respiration; the body became cold, and the patient died. On opening the body, Wepfer found much blood between the membranes of the brain and in its ventricles: “omnes cruore adimpletos non quarto quidem excepto.” The lateral ventricles appeared dilacerated about their base: “ac si nimio cruore distenti rimes egissent.” Wepfer could not discover that any vessel of the brain had been ruptured, although more than two pounds of blood were effused.

To

To the Editor of the Medical and Physical Journal.

SIR,

SUCH of your readers as have seen Mr. Granger's paper in a northern quarterly Journal, will not think any reply from me to his captious and testy observations in your last Number at all necessary. Indeed, his own paper in that Journal, furnishes a complete answer to his paper in *your* Journal.

He accuses me of "misrepresentation, misquotation," &c. and even denies his own words, and says, "I make him say" that Ann Moore's illness was assumed, or, as he has it, *simulated*. His own words are, "The debility at the same time was so extreme as to occasion syncope. In the state of syncope, the pulse was 140, and indistinct." And then, in a note, his words are, "It is now admitted that the illness in a great degree was *simulated* for the purpose of exciting alarm." After quoting Mr. Granger's own words, it is hardly necessary to ask, whether I "make him say," as he states, in his reply to me, that "the pulse was 140, and indistinct?" But, really, the subject of Ann Moore is worn threadbare, and your readers will, I have no doubt, be glad to be released from any further discussions upon it, and on my part I shall not disappoint them. My object in my short notice of Mr. Granger's account of the second watch, was to reprehend what I conceived to be an unfair and even absurd statement, and an officious interference with, and anticipation of, the promised publication of Mr. Legh Richmond.

I am, Sir,

Your obedient Servant,

Derby, Sept. 10, 1813.

JOHN WEBSTER.

For the Medical and Physical Journal.

ON GUN-SHOT WOUNDS.

THE following treatise is a translation from the surgical work of M. Richerand, a distinguished physiologist and professor of the Parisian school of medicine. To this translation some slight additions have been made; and one or two paragraphs on extracting instruments have been omitted, for the purpose of substituting an account of the instruments of M. Chevalier, which seem to be the most useful. The observations of M. Richerand merit peculiar attention, because, in addition to his acquaintance with the experience of the French army surgeons, it is evident he is not ignorant of the opinions of English surgeons, and above all those of Mr. John Hunter. To the latter circumstance,

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almost as much as to the former, may, perhaps, be attributed the abandonment of those officious intermeddlings with the processes of nature, which characterised the practice of the French, so late as at the commencement of the French revolution. At that time, it would have appeared unpardonable negligence to leave a gun-shot wound without a certain number of *incisions* and *unbridlings*. "The first indication of the systematic surgeon," says M. Percy,* "is to *change the nature* of this wound, and convert it, as much as possible, into a bleeding wound." We shall see M. Richerand restricting the application of this practice, and pointing out, with considerable discrimination, though not in the most systematic manner, the cases in which *incisions* and *unbridlings* ought to be employed.

Gun-shot wounds are characterised by the disorganization of their surface. The extreme contusion observed in these wounds depends on the rapidity with which the body producing them is moved. The parts it touches are converted into a blackish slough, which caused the ancients to think that bodies, projected by gunpowder, were heated, and produced actual burns. Reason and experience have taught us, that, however great may be the rapidity of a projectile, it does not acquire any sensible heat during its course. The degree of heat which would render a ball capable of burning the human body, would be sufficient to melt the ball.

The wounds of fire arms do not bleed unless a large vessel should be opened: the neighbouring parts are livid, and the shock which accompanies is so sudden and violent, that the part struck experiences a kind of stupor, of which the whole animal economy frequently partakes.

The history and the treatment of gun-shot wounds was filled with the most pernicious errors, before Ambrose Paré had established the true theory of them. Cannon balls and bullets sometimes produce the most serious injuries, without hurting the skin. The soft parts have been reduced to a kind of jelly, and the bones themselves broken, although the integuments were uninjured; and this effect was long attributed to the displacement of the air by the projectiles. It was believed that this elastic fluid, when suddenly displaced by the shock of a cannon ball, was capable of pressing surrounding bodies with sufficient violence to tear their substance; but how can we conceive such a pressure in the midst of the free air? The effect observed ought to be produced constantly, when a ball passes near; but we may every

* Chirurgien d'Armée, p. 181, Ed. 1792.

May see bullets carry away the plume, the hat, the clothes, and even the hair of the soldier, without his experiencing any other inconvenience.

The oblique action of balls on the human body easily explains this extreme contusion, in which the skin is not affected. Sometimes also it depends on the weakness with which these balls strike, when, having expended the greater part of the motion impressed on them, they act only by virtue of their weight. They are then designated by the name of spent balls.

When the contusions of fire arms are pretty violent, the muscles and cellular membrane bruised, and reduced to a kind of jelly, similar to the lees of wine, the bone sometimes broken, the limb is often in a state of torpor, which inevitably brings on gangrene.

Gun-shot wounds may have only one, or they may have two outlets, the ball being arrested more or less deeply in the thickness of the part, or having passed quite through it. In the last case the two openings are diametrically opposite, in the greater number of instances: pretty often, however, the outlet does not exactly correspond with the entrance of the ball, its direction having been changed by the resistance opposed to it by a bone, a cartilage, a tendon, or even an aponeurosis. Thus a bullet, having pierced the skin of the leg near the internal ankle, has been known to glide between the tibia and the skin, ascend, and come out near the knee; sometimes having struck the forehead, it has issued at the temple, etc. Books relate a great many instances of these singular deviations. The directness of a ball's course will be in proportion to the rapidity of its motion, and also to the softness of the parts it passes through.

The wounds of musquet balls generally have the form of the body which produces them: they are round, square, or oblong; but when they have two openings, that at the entrance is always larger than that at the exit of the ball. Its edges are depressed; there is a depression near the entrance, while the parts are, as it were, raised, and make a projection towards the other opening. This difference takes place, because, at the moment the ball meets the limb, it strikes it with its full force, which it loses when it is buried in the thickness of the parts, in overcoming their resistance. The skin at the entrance is supported by the whole thickness of the limb; this point of support favors the solution of continuity, and prevents laceration: the contusion is also, for the same reasons, greater at the entrance of the ball, and when the swelling, which is always proportionate to the contusion, has taken place, the difference between the two openings is more

strongly marked, for the entrance is more swelled than the outlet. These explanations are so well founded, that Le Dran, speaking of wounds of the head, remarks, there is no difference between the entrance and outlet, because the point of support is of the same nature.

The livid yellow color of the parts around a gun-shot wound, arises from the ecchymosis produced by the violence with which the blood is driven back, the slough preventing the escape of the humors. They swell the part, and much increase the importance of the wound. The part struck is benumbed, weighty, and in this state of torpor defends itself feebly against the entrance of liquids; the organic activity being almost extinguished, gangrene comes on, and makes the most rapid advances. This state of stupor and insensibility is especially fatal when the whole body experiences it; and this takes place in consequence of severe commotions, as when the body is struck by a large ball, or any other body of a certain bulk. In this state died the light horseman of whom Quesnay speaks: the state of stupefaction was such, that when they proposed amputation, the man answered "it was none of his business."

Jaundice is seen to occur suddenly from gun-shot wounds; also shiverings, faintings, and other nervous accidents, which caused the old surgeons to believe that gunpowder carried a secret poison into wounds; but the attrition which organs undergo, and the violent shock, of which the whole system partakes in a greater or less degree, are sufficient to explain the most mischievous consequences.

The complication arising from foreign bodies concealed in the wound, often exists in this species of injuries. These bodies are, either the ball itself, or portions of the clothes, which it has carried into the flesh. When the wound has but one opening, it very probably contains a foreign body: this is not certain, however; a number of cases are related, in which the ball, after making a deep wound of some inches, has been found in the shirt of the wounded man. In these cases, the linen is not even torn, but merely driven into the wound.

When this has two openings, we may conjecture that the ball has passed out; but even then, fragments of the clothes may remain in the passage, and this is the more easy, because these bodies being lighter, and pushed with a less force than the ball, are not capable of passing through an equal space.

Thus then the first indication in gun-shot wounds is to proceed to the search of foreign bodies, with which it may be complicated. Nothing can contra-indicate this search,
but

but the danger of causing an unmanageable hemorrhage, by detaching the slough. A variety of ball forceps have been invented either to discover or extract the balls and other foreign substances, which the wound may contain. The finger is preferable to them all, when it is capable of reaching the foreign body; for the resistance made by bones and tendons, which lie in the course of the wound, may easily pass for some extraneous body.

The best forceps are, perhaps, those recommended by Mr. Chevalier. They are of two kinds; one for the extraction of balls, which is nearly like straight tooth forceps, except that the swell near the extremity is more considerable, for the purpose of receiving the ball. The other forceps are formed like common dressing forceps, but are of a greater size. A silver instrument has been invented, the form of which somewhat resembles that of an unblown tulip, the leaves of which are contrived to expand after the instrument has reached the ball, and thus having received it into their cavity, to close and retain it.*

It is useful, in searching for foreign bodies, with which gun-shot wounds may be complicated, to cause the patient to be placed in the situation he was when he received the wound. By means of this precaution, and carefully feeling the parts about the wound, Ambrose Paré discovered, in the Marshal Brisac, a ball placed between the shoulder blade and the spine, which had escaped the search of many surgeons, who had employed the probe alone.

It must not be forgotten that balls sometimes deviate from a straight course, in a very singular manner. In order that they should undergo these deviations, it is not necessary they should meet with bone, cartilage, or tendon. The mere difference of medium may produce a kind of refraction; for since water is able to turn a ball from a right line, the soft parts of the body will produce this effect in a greater degree, as their density is greater than that of a simple liquid.

These deviations of balls may cause us to believe that they have penetrated a cavity whose surface only they have passed over. Such, no doubt, was the case of a young drummer of the Swiss guards, who received a wound in the shoulder on the 10th of August. The ball had struck under the clavicle, and passed to the inferior angle of the scapula. Professor

* This is not a modern invention. We find in Dionis the figure of an instrument of very similar construction, which he calls *Alphonsin* from the name of the inventor.

Boyer extracted it by making a counter-opening. How could it pass through the upper part of the breast without wounding any of the important organs it must meet in its passage? Besides, it presented asperities, which evidently proved it had rubbed against osseous parts.

Sometimes, the nicest examination is not successful in discovering them; their passage is so tortuous, and they are so much refracted by the hard parts they meet in the way, that it is impossible to get at them. Then, by carefully examining the parts about the wound, and especially the part diametrically opposed to it, we perceive a foreign body through a greater or less thickness of parts, which it is necessary to incise, in order to extract it. We determine to make these counter openings the more readily, because a ball never can be extracted by the passage it had entered, without a considerable and painful traction on the parts. The new opening also facilitates the discharge of pus, and singularly shortens the cure, which is rendered tedious by the lodgment of this fluid, when the wound has only one outlet.

We must spare neither time nor pains for the extraction of foreign bodies, for their presence is a continual cause of irritation: they aggravate the accidents of wounds, and make them degenerate into fistulas. Sometimes, however, balls lie closely lodged in bones, during a long series of years, without danger and without pain. In some cases they pass a long way under the skin, making their way through the cellular membrane, without bringing on inflammation. The passage is then usually marked by the appearance of a reddish line in the skin. Balls have been seen to become a cause of irritation after they had been a long time quietly lodged in the body, bringing on a suppuration which removed them. We should not be too obstinate in searching for extraneous substances, because a very long and painful search might cause worse accidents than the matters lodged in the wound. When they are very difficult to find, we must abandon their expulsion to nature, or at least wait for symptoms to determine our course.

Is it always necessary to enlarge gun-shot wounds by incising their orifices? Some authors have laid down as a general rule the dilatation of these wounds. This operation, say they, besides that it singularly facilitates the search for foreign bodies, prevents the strangulation of the parts, when their inflammatory swelling comes on. More timid practitioners have gone so far as to forbid dilatation in all cases. According to them, these incisions increase the local disorder, facilitate gangrene, and are not without danger to the nerves,

the

the vessels, and the tendons, which may be implicated in them. It is true that this practice has been carried to excess; but the proscription of its abuse ought not to be extended to its use: it is, therefore, indispensable to determine the cases in which it may be necessary.

(To be continued.)

To the Editor of the Medical and Physical Journal.

SIR,

AS I have repeated my experiments several times on the Melksham water, and as I wish to make the account you honored me by inserting in your valuable Journal, as correct as possible, I beg leave to submit to you this short statement of the analysis. I also send you the results of experiments made for the purpose of establishing the real contents of the Cheltenham and Leamington waters, being authorised by a medical friend, who has devoted much time to the processes by which they were ascertained, the detail of which will shortly be presented by him to the public. You will observe that these analyses differ from such as have been lately given of these celebrated springs; and you will also see that the salts here enumerated are not incompatible with each other.

A quantity of the residuum which had been obtained from evaporating the Melksham water at the heat of 180° , was subjected to alcohol, and repeatedly washed in it until all the earthy muriates were dissolved and carried off. To this filtered solution both carbonate of ammonia and pure ammonia were added, and each produced a precipitation evincing the presence of both muriate of lime and muriate of magnesia.

Distilled water was then poured on the residuum to examine the nature of the sulphates, but nitrate of lime produced no precipitation in this filtered liquor, and pure ammonia did not detect any magnesia, consequently neither sulphate of soda nor sulphate of magnesia exist in this water.

The remaining residuum was dissolved in dilute nitric acid, and the fluid was filtered, leaving the sulphate of lime on the filter. In this fluid pure ammonia produced a slight precipitation showing magnesia; carbonate of ammonia separated the calcareous earth; and prussiate of potash evinced, by a strong blue color, the presence of iron.

The contents of this water, therefore, are muriate of soda, muriate of magnesia, muriate of lime, sulphate of lime, and the

the carbonates of lime, magnesia, and iron. I have put down the carbonate of magnesia, which, though questionable as an ingredient existing with muriate of lime, my experiments have uniformly detected. The muriate of lime being incompatible with the sulphates, except sulphate of lime, we could not expect it to exist in the Cheltenham waters, where Glauber's salt is a well-known ingredient.

The waters of Mr. Thompson's chalybeate and carbonate saline wells, as ascertained by the gentleman above mentioned, contain muriate of soda and sulphate of soda, no muriate of lime, no muriate of magnesia, and no sulphate of lime; a small portion of carbonate of soda, and, perhaps, a grain or two in a pint of sulphate of magnesia; the carbonates of lime, magnesia, and iron.

The water of Forty's old well contains muriate of soda, sulphate of soda, muriate of magnesia, sulphate of magnesia, and sulphate of lime; the three carbonates of lime, magnesia, and iron.

Leamington water contains muriate of soda, sulphate of soda, muriate of magnesia, a small quantity of sulphate of magnesia, and a very large portion of sulphate of lime.

From the above statement, it appears that the peculiarity of the Melksham water consists in its containing muriate of lime, and in its possessing at the same time a purgative quality, from which it may be entitled to some medical respect, and may establish some degree of reputation similar to that which has been so deservedly gained by the celebrated waters of Cheltenham and Leamington.

The Melksham water has been for some time used by the common people with much success for glandular, scrophulous, and scorbutic complaints; and already many very decided cases of those disorders, as well as such as proceed from indigestion and improper secretion of bile, have come to my knowledge. I may take the liberty of sending to you, at some future time, the detail of cases, as there seems sufficient reason to suspect that this variety of mineral water may have a correspondent effect on disease.

I have the honor to be, Sir,

Your most obedient Servant,

Bath, Oct. 10, 1813.

G. S. GIBBES, M.D.

P. S.—I have not mentioned the quantities of each ingredient contained in the Melksham water, as I wait to compare the results of my experiments with those of Dr. Wilkison, who is now engaged in the analysis.

To

To the Editor of the Medical and Physical Journal.

SIR,

THE bill introduced into parliament last sessions by certain apothecaries, but withdrawn by them, from a suspicion, perfectly well grounded, that the wisdom of parliament would reject it, is again to be presented in order to be passed into a law. As this bill is intended to produce changes of considerable moment and interest both to the public and the profession, a short and candid review of it may be useful and acceptable.

First, it divides England and Wales into a certain number of districts, to be governed by medical committees, which district committees are to be entirely subordinate to a certain new organised body called the *London Superintending Committee*; and in order to insure this subjection, the individual members composing the district committees are to be *appointed* by the London superintending committee.

The provincial committees are not to be permitted to examine or grant licenses to practitioners of any description, nor even to visiting assistants: this power is to be vested exclusively in the London committee.

The duty of the provincial committees is to be limited to the humble task of examining and binding apprentices, and granting licences to journeymen shopmen and female midwives, and faithfully report their proceedings, to be reviewed by the London committee. The fair inference from this regulation is, that the inferior attainments and professional knowledge of the gentlemen in the country disqualify them from passing judgment on the qualifications of candidates.

The district committees are to make out annually, regular lists of every licensed practitioner, and affix them to their respective parish church doors. The reason given for this is, to enable the public to distinguish the regulars from the irregulars. On this clause it may be remarked that few gentlemen of known and acknowledged reputation will permit their names to be enrolled or published in this manner. Besides the utility of it is very questionable; for when the advertising quack is consulted, it is not because he is mistaken for a regular, but because he is known to be a nostrum vender, and the avowed enemy of the regular practitioner.

All the money, says the bill, arising from certificates, is to be at the uncontrolled disposal of the London committee. With this fund they may purchase lands, build halls, endow teachers, and doubtless *grant to themselves adequate salaries for their great care and trouble.*

NO. 177.

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Such

Such is the new medical constitution by which the profession are now to be governed. There remains to be noticed a few minor clauses or enactments which respect apprentices, female midwives, and attendance fees.

Apprentices, on being bound, are to be previously examined on their knowledge of the Greek Testament; their indentures are to bear a stamp duty of 25*l.*; and they are to pay a further sum of 5*l.* 5*s.*, which last sum is *to be shared by the London and the district committees*. We pass over the pedantic folly of requiring from apprentices a knowledge in the Greek Testament, to observe that such an enactment will effectually preclude every gentleman of narrow income and practice from bringing up his sons to his profession, and will drive multitudes into Scotland for their medical education, in which country apprentices will not be subjected to pay such unreasonable fees to a business, the emoluments of which are very often of the most slender and precarious nature.

Every female practising or acting as a midwife without a certificate, the bill enacts, is to be fined in a blank sum of money. By this clause it follows, should any good motherly woman assist another in the pains of labor, and take any reward for her services, she is to be punished by a fine. No exceptions are provided from the necessity of the case, or the absence of a licensed practitioner. This humane enactment may be fitly classed with the clause exacting a sum of money from the poor youth who hires himself as an assistant, "whose learning is probably all his portion," before he can be allowed to earn his bread; but, thank God, this rapacious bill is not yet passed into a law.

Apothecaries, the bill says, may sue for and recover fees for visits and attendance. The power of suing for and recovering such charges has never yet been denied the profession by either courts or juries. The writer of this article has himself witnessed, in the court of Chester, actions brought for such fees, within this year or two, and liberal verdicts given. In truth, this bill will add considerably to the expence of a process; for it enacts that no apothecary shall be allowed to recover *any charges* unless he shall prove himself duly licensed under this act.

But the most dangerous privilege which the London committee assume to themselves, is the power given to them by this act of making and revoking bye-laws, rules, and constitutions, as they see fit.

Upon the whole, it appears that this bill is in the highest degree objectionable, is unjust in its principle, and oppressive in its operation; and will prove only beneficial to the members of the London superintending committee:—to
them

them it will be a source of profit, power, and patronage; to the rest of the profession insulting and degrading. Besides, the creation of this new body is unnecessary and uncalled for: when the public service or government require a test of the professional abilities of any individual, previous to employing him, there exist already a College of Physicians and Surgeons, whose competency and integrity have never yet been questioned.

With respect to private practice, mankind have and will always claim the right of applying to whom they please for relief from their maladies. The scholar and well-educated practitioner, by a faithful discharge of his professional duties, will not fail in due time to evince his superiority over the unprincipled practitioner, "and holding thus the noiseless tenor of his way," will reach at length an honorable independence.

MEDICUS STOCKPORTENSIS.*

Sept. 15, 1813.

For the Medical and Physical Journal.

APPENDIX to the REPORT of the LONDON COMMITTEE of
APOTHECARIES and SURGEON-APOTHECARIES.

(Continued from p. 315.)

No. I.

Copy of a Letter directed to Sir Francis Milman, Bart. President, &c. and to the Fellows of the Royal College of Physicians.

GENTLEMEN,

THE Committee appointed by a General Meeting of the Apothecaries of England and Wales, held at the Crown and Anchor Tavern, on Friday, the 20th of November, 1812, to carry into effect certain resolutions then agreed to, beg leave to transmit to you a copy of their report, with the resolutions subjoined, as approved of by that meeting.

* We are compelled to remark in common candor, that the observations in this paper, by *Medicus Stockportensis*, apply *only* to the bill which has been relinquished, and can have no reference to that which is intended to be brought into parliament in the ensuing session, the clauses of which not yet being before the public, cannot possibly be the subject of animadversion. As far as we are enabled to judge, from the *resolutions* which the Committee have printed, and which this writer might have seen in our preceding number, as the bases of the new bill, his remarks will be totally inapplicable to that bill.—EDITOR.

The Committee are of opinion that the management of the sick should be as much as possible under the superintendence of the physician; but as in a very great majority of cases the assistance and skill of the apothecary must be relied upon, no one should be allowed to practise as an apothecary without having previously submitted to a suitable examination.

The Committee suggest that there be a distinct privileged body established by the authority of parliament for such examination, and to superintend the general professional interests of apothecaries and surgeon-apothecaries throughout England and Wales, insuring by this means the better preservation of the public health. By the authority to be vested in the proposed superintending body, the apothecary will be required to be universally well qualified, and be thus rendered more worthy of public confidence. The Committee, therefore, submit, that he should possess a legal claim to moderate remuneration for his attendance and professional skill, under such modifications as may hereafter be judged proper.

The Committee are satisfied that any measures which may be considered as calculated to promote their views, must be confirmed by an act of the legislature, which will, unavoidably, be attended with considerable expence. They have, consequently, made it a primary object, and provided such a fund, as will, in their estimation, be adequate to that purpose.

The Committee are desirous to obtain the sanction and concurrence of the legally-constituted bodies of the profession; and they wish it to be distinctly understood, that they are extremely anxious that the regulations to be proposed shall, in no degree, interfere with their established privileges.

They have, therefore, determined to address the Royal College of Surgeons, and the Society of Apothecaries, at the same time with yourselves; and trust that they shall receive your countenance and support in a petition to parliament for the protection and regulation of the practice of the apothecary.

(Signed by desire of the Committee)

Bloomsbury-square,

G. M. BURROWS, Chairman.

Dec. 11, 1813.

Note.—A similar letter was addressed to Thompson Forster, Esq. Master, &c. and to the Governors and Court of Assistants of the Royal College of Surgeons: and another with the latter paragraph omitted, and the following paragraph

graph substituted, to the Master, Wardens, and Court of Assistants, of the Society of Apothecaries.

“ They have, therefore, determined to address the Royal College of Physicians and Surgeons at the same time with yourselves.

But as the major part of the members of your society have the same general interests as other apothecaries, and can appreciate more correctly the extent of their grievances, the Committee trust their application to you will be favorably received and countenanced.

With such approbation they will be enabled more confidently to call upon the Royal College of Physicians and Surgeons, to unite in a petition to parliament for the protection and regulation of the practice of the apothecary.

(Signed by the desire of the Committee)

Bloomsbury-square,

G. M. BURROWS, Chairman.”

Dec. 11, 1812.

No. II.

(Copy.)

Bloomsbury-square,

Dec. 25, 1812.

SIR,

As Chairman of the Committee elected by a General Meeting of the Apothecaries of England and Wales, I was instructed to direct the report and resolutions of that meeting, with a letter from the Committee, to the President and Fellows of the Royal College of Physicians.

Conformably with those instructions, I had the honor to send to you, as the president, the printed report of the meeting, and the letter of the Committee, signed by me as chairman, on the 11th instant, for you, officially, to submit to the fellows.

It has been intimated, that my letter, with the report, may be considered by the College a private communication to you; but though this appears to me improbable, yet, to prevent so erroneous an impression, I take the liberty of addressing you again as president, to request that you will lay the said letter, with the report, before the Royal College of Physicians at their next meeting, and that you will condescend to give orders that the Committee be favored with an early answer.

I have the honor to be, Sir,

Your obedient humble Servant,

G. M. BURROWS, Chairman.

To Sir Francis Milman, Bart.

No.

No. III.

SIR,

Brook-street, Dec. 25, 1819.

I had the honor of your letter of the 11th, and I have this moment received your favor of this day's date. I understood your first letter to have been only a circular form, of which you had addressed copies to a considerable number of my brethren, as you expressed a determination to address the Royal College of Surgeons and the Society of the Apothecaries at the same time with the College of Physicians. I waited for the execution of this declared purpose, and expected to receive your intended formal application, with your commands to lay it before the College, which I would have obeyed with great pleasure on the 22d of this month, the usual day of our meeting. No such document having reached me, I thought it possible the Committee might have altered the resolution they had formed; and not being particularly desired to do so, I did not deem myself justified in laying your first letter before the gentlemen assembled on the 22d in Warwick-lane. Should it continue to be the wish of your Committee, I will take the first opportunity of a meeting of the College to lay your letters before them.

I have the honor to be, Sir,

Your most obedient humble Servant,

*To G. M. Burrows, Esq.
Bloomsbury-square.*

F. MILMAN.

No. IV.

*Bloomsbury-square,
Dec. 26, 1812.*

SIR,

Accept my acknowledgments for the distinguished attention with which you honored my letter of yesterday, by your answer of the same date.

The letter of the 11th instant, which I subscribed and sent by desire of the Committee of Apothecaries, was directed to the President and Fellows of the Royal College of Physicians. The Committee, therefore, could not conceive it essential to request a letter to be laid before your learned colleagues, which was expressly addressed to them as well as to you, sir, their president; and which they consequently imagined would be presented, as a matter of course, at the meeting of the College on the 22d of December.

The report was sent as a mark of respect to every member of the executives of the medical bodies to whom the Committee were directed to apply, by the fifth resolution of the General Meeting of Apothecaries, held November 20th; but the letter of the Committee was intended as the specific application, and was particular, and not general or circular.

May I take the liberty of soliciting that you will be pleased to inform me when the meeting of the College will take place, to which you propose submitting the letter of the 11th instant, that I may communicate your reply to the Committee?

I have the honor to be, Sir,

Your obedient humble Servant,

G. M. BURROWS, Chairman.

To Sir Francis Milman, Bart.

No. V.

Bloomsbury-Square,

Dec. 26, 1812.

SIR,

The letter from the Committee of Apothecaries subscribed by me, dated December 11th, and addressed to you as the Master, and to the Governors and Court of the Royal College of Surgeons, I request you will lay before the College, at their first meeting, if that be not already done; and I further take the liberty to express my hope, that you will return an answer as soon as the necessary forms admit.

I have the honor to be, Sir,

Your obedient humble Servant,

G. M. BURROWS, Chairman.

To Thompson Forster, Esq.

Master of the Royal College of Surgeons.

No. VI.

Southampton Street, Bloomsbury,

December 28, 1812.

Mr. Forster's respects to Mr. Burrows, and begs leave to mention that he laid his letter from the Committee of Apothecaries before the Court of Examiners on the 18th instant; that Court not being competent to the taking it into consideration, it was referred over to the first General Court of Assistants of the College of Surgeons.

To G. M. Burrows, Esq.

Chairman of the Committee of Apothecaries.

No. VII.

Bloomsbury Square,

Jan. 1, 1813.

SIR,

The Committee of the Apothecaries of England and Wales have been made acquainted with the correspondence which has taken place with you, relative to their letter of the 11th of December, directed to the President and Fellows of the Royal College of Physicians.

I have the honor to inform you, that they are extremely concerned to find it was not presented at their meeting on the 22nd, agreeably to their intentions. The Committee therefore make it their particular request, that it may be submitted to the College.

As

As I have not yet been favored with an answer to the question with which I closed my letter of the 26th, the Committee beg leave most respectfully to suggest their wish, that you may think it right to call a meeting of the College at an early period, for the purpose of taking their letter of the 11th into consideration.

The Committee, with great deference, venture this proposal; but further delay will be attended with material inconvenience, as it may prevent the passing of a Bill through Parliament during the present Session.

I have the honor to be, Sir,

Your obedient humble Servant,

To Sir F. Milman, Bart.

G. M. BURROWS, Chairman.

(To be continued.)

COLLECTANEA MEDICA,

CONSISTING OF

ANECDOTES, FACTS, EXTRACTS, ILLUSTRATIONS,
QUERIES, SUGGESTIONS, &c.

RELATING TO THE

History or the Art of Medicine, and the Auxiliary Sciences.

Additional Remarks on the State in which Alcohol exists in fermented Liquors. By William Thomas Brande, Esq. F.R.S. From the Philosophical Transactions. Read before the Royal Society, December 17, 1812.

THE experiments and observations contained in this paper, are intended as supplementary to a communication on the same subject, which the Royal Society has done me the honor to insert in the Philosophical Transactions for the year 1811.*

On that occasion, I endeavored to refute the commonly received opinion respecting the *production* of alcohol during the distillation of fermented liquors, by showing, that the results of the process are not affected by a variation of temperature equal to twenty degrees of Fahrenheit's scale; that is, that a similar quantity of alcohol is afforded by distilling wine at 180° and at 200°.

I also conceived, that any new arrangement of the ultimate elements of the wine, which could have given rise to the formation of alcohol, would have been attended with

other symptoms of decomposition; that carbon would have been deposited, or carbonic acid evolved, which in the experiments alluded to, was not the case. Upon such grounds I ventured to conclude, that the relative quantity of alcohol in wines, might be estimated by submitting them to a careful distillation, and by ascertaining the specific gravity of the distilled liquor with the precautions which I have formerly described.

This conclusion may be objected to, by supposing that the lowest temperature, at which the distillations were performed, was sufficient for the formation of alcohol from the elements existing in the wine; but it is not easy to conceive how this should happen, without some of those other changes which I have just noticed.

It has been stated, in my former paper, that the separation of alcohol from wine, by the addition of subcarbonate of potash, is prevented by the combination of the alkaline salt with the coloring-extractive, and acid contained in the liquor. I have also shortly noticed some unsuccessful attempts to separate these substances by other means than distillation.

In prosecuting the inquiry, this difficulty has been surmounted, and I shall proceed to show, that alcohol may be separated from wine without the intervention of heat, and that the proportion thus afforded is equal to that yielded by distillation.

When the acetate,* or subacetate† of lead, or the subnitrate of tin‡ are added to wine, a dense insoluble precipitate is quickly formed, consisting of a combination of the metallic oxide, with the acid and coloring-extractive matter of the wine; and when this is separated by filtration, a colorless fluid is obtained, containing alcohol, water, and a portion of the acid of the metallic salt, provided the latter has not been added in excess, in which case a part remains undecomposed.

The acetate of lead and the subnitrate of tin produce the desired effect of separating the coloring and acid matter, in the greater number of instances, but they are less rapid and perfect in their action, and not so generally applicable as

* Sugar of lead.

† Formed by boiling two parts of sugar of lead with one of finely powdered litharge in six parts of water. The solution should be preserved in well-closed phials, as it is rapidly decomposed by attracting carbonic acid from the atmosphere. Even while hot, a portion of carbonate of lead is formed in it.

‡ Prepared by dissolving protoxide of tin in cold dilute nitric acid.

the subacetate of lead,* which is the substance that I commonly employed.

The following experiment was made with a view to ascertain the effect of this salt.

Twenty measures of alcohol, specific gravity ,82500, were mixed with eighty measures of distilled water colored with logwood, and rendered slightly acid by supertartrate of potash. Four measures of a concentrated solution of the subacetate of lead were added to this mixture, and the whole poured upon a filter. A precipitate was thus collected of a deep purple color, which appeared to consist of oxide of lead combined with tartaric acid and the coloring-extractive matter.

The filtered liquor was perfectly transparent and colorless, and afforded, on the addition of subcarbonate of potash, 19,5 measures of alcohol.†

Finding that the separation of alcohol by subcarbonate of potash from mixtures of spirit and water, was nearly complete, and that coloring-extractive matter, and tartaric acid might be removed from such mixtures by the subacetate of lead, I proceeded to examine wine by such modes of analysis.

The following results were obtained by these, and other comparative experiments.

1. One part by measure of a concentrated solution of subacetate of lead, was added to eight measures of common

* The effect of this salt upon coloring matter, was first pointed out to me by Mr. E. M. Noble, of Chelsea.

† Pure subcarbonate of potash, obtained by igniting the carbonate, was employed in these experiments. I found that about 19,5 parts of alcohol were separated in the course of four hours, by the addition of 50 parts of the subcarbonate to a mixture of 20 parts of alcohol by measure with 80 of distilled water, and that no further separation took place. The alcohol is always slightly alkaline, probably from containing a small portion of the solution of the subcarbonate, or of pure soda; but as this did not interfere with the object of the experiments, it was not particularly attended to.

When the subcarbonate was added to a mixture of four parts by measure of alcohol with 96 of water, no separation was effected.—A mixture containing 8 per cent. of alcohol afforded about 7 parts—one containing 16 per cent. about 15,5, and where the proportion of alcohol exceeded 16 per cent. the quantity, indicated by the action of the subcarbonate, was always within 0,5 per cent. of the real proportion contained in the mixture. So that in the examination of wines containing less than 12 per cent. of alcohol, the method described in the text is somewhat exceptionable. The above experiments were made in glass tubes varying in diameter from 0,5 inch to 2 inches, and accurately graduated into 100 parts.

port

port wine: the mixture having been agitated for a few minutes, was poured upon a filter. The filtrated liquor was perfectly colorless, and the addition of dry subcarbonate of potash effected a rapid separation of alcohol.*

100 measures of the wine thus treated, afforded 22,5 measures of alcohol.

2. Eight ounces of the wine employed in the last experiment, were distilled in glass vessels, as described in my former paper. The specific gravity of the distilled liquor at the temperature of 60° was 0,97530, which indicates 22,30 per cent. by measure of alcohol of the specific gravity of ,8250.

3. Eight ounces of the same wine were introduced into a retort placed in a sand heat, and the process of distillation was stopped when six ounces had passed over into the receiver. After the vessels were completely cooled, the portion in the receiver was added to the residuum in the retort. The specific gravity of this mixture (ascertained with proper precautions) was ,9884, that of the original wine = 0,9883.†

When care was taken to prevent the escape of vapor, no change of specific gravity was produced in the wine by three repetitions of the above process.

Similar experiments were repeated upon Madeira, Sherry, Claret, and Vin de grave, wines differing in the relative proportions of alcohol, coloring matter, and acid which they contain, and the results were as decisive; so that I conceive it is amply proved, by experimental evidence, that no alcohol is *formed* during the distillation of wines, and that the whole quantity found, after distillation, pre-existed in the fermented liquor.

It has been frequently asserted, that a mixture of alcohol and water, in the proportions I have stated them to exist in wine, would be much more effectual in producing intoxication, and the general bad effects of spirituous liquors, than a similar quantity of the wine itself. But this is true to a very limited extent only: when brandy is added to water, it is some time before the two liquids perfectly combine, and with alcohol this is more remarkably the case, and these mixtures are warmer to the taste, and more heating, if taken in this state of imperfect union, than when sufficient time has been allowed for their perfect mutual penetration.

I have also ascertained that distilled port wine tastes

* When any excess of the subacetate had been employed, a portion of carbonate of lead was thrown down; but this did not interfere with the subsequent separation of the alcohol.

† This experiment was suggested in the Edinburgh Review for November, 1811.

stronger, and is more heating than the wine in its original state, and that these qualities are impaired, and the wine reduced nearly to its original flavor, by the addition of its acid and extractive matter. With claret, and some other wines, containing less alcohol and more acid than port, these circumstances are more readily perceived; and lastly, if the residuum afforded by the distillation of 100 parts of port wine, be added to 22 parts of alcohol and 88 of water (in a state of perfect combination), the mixture is precisely analogous in its intoxicating effects to port wine of an equal strength.

In the table annexed to my former paper, it appears that the average quantity of alcohol contained in port wine amounts to 23.48 per cent.; but two of the wines there alluded to are stronger than any I have since met with, and were, at that time, sent to me as "remarkably strong and old port." I have lately examined a number of specimens of the better kinds of port wine in common use, and the results of these experiments lead me to place the average strength at 22 per cent. of alcohol by measure.

A port wine procured for me by Dr. Baillie, and to which no brandy had been added, afforded 21.40 per cent. of alcohol: another specimen of a similar description, put into my hands by an Oporto merchant, contained only 19 per cent.; it is the weakest port wine I have met with.

The other results given in the table, agree perfectly with those of subsequent and more extended experiments.

Observations on Radiant Heat. By F. DELAROCHE, M.D.*

I propose in this memoir to state several propositions which appear to me capable of throwing some light on the theory of radiant heat; and which, I think, I have established by decisive experiments. These experiments, indeed, were made with sufficient care to prevent any doubts about their exactness; but I may be deceived in the conclusions that I deduce from them. In that case I shall readily acknowledge my error; nor shall I think that I have lost my labor if I draw, upon so interesting a subject, the attention of some philosopher more fortunate than myself, or better situated for examining it with accuracy.

First Proposition.—*Invisible Radiant Heat may in some circumstances pass directly through Glass.*

Different philosophers, and particularly Mr. Leslie, conceive that they have proved the falsehood of this proposition; but the experiments of Professor Prevost, of Geneva, have lately established its truth in an incontestable manner. He

* Abridged from the *Journal de Physique*, vol. lxxv. p. 201.

obtained his result by separating the immediate effects of transmitted heat from those produced by the heating of the glass, by a process equally simple and ingenious; namely, by employing moveable screens of glass, which he renewed continually, and of course did not give them time to become heated. I have myself, since I became acquainted with the memoir of M. Prevost, made a great many experiments, which appear to me to prove the same thing. The nature of these will be stated in support of the second proposition.

Second Proposition.—*The Quantity of Radiant Heat which passes directly through Glass is so much greater relative to the whole Heat emitted in the same Direction, as the Temperature of the Source of Heat is more elevated.*

Dr. Delaroché shows, in the first place, by some ingenious experiments, that a thermometer (of the temperature of the surrounding atmosphere) exposed to the action of radiant heat rises in a given time, *cæteris paribus*, a quantity proportional to the rays which it receives. If a certain number of rays make it rise 1 degree, double the number will make it rise 2 degrees, triple the number 3 degrees, and so on. This being established, he placed two parabolic metallic mirrors at the distance of rather more than three feet from each other. In the focus of one mirror he placed a thermometer; and in the focus of the other a hot body, gradually increasing in temperature. The thermometer was allowed to rise to its maximum without any screen. Then a screen of transparent glass was interposed, and the experiment repeated. Lastly, a screen of blackened glass was interposed, and the experiment repeated a third time. By the blackened screen all the radiant heat would be intercepted, and the effect on the thermometer would be owing to the rise in the temperature of the screen. Hence the rise of the thermometer, when the blackened screen was used, subtracted from the same rise when the transparent screen was used, leaves the effect produced by the radiant heat passing through the glass. The following table shows the ratio between the rays passing through the clear glass, and the rays acting on the thermometer, when no screen was interposed, at different temperatures:—

Temperature of the Hot Body in the Focus.	Rays transmitted through the Glass Screen.	Total Rays.
357° -----	10 -----	263
655 -----	10 -----	189
800 -----	10 -----	75
1760 -----	10 -----	34
Argand's lamp without its chimney --	10 -----	29
Ditto, with glass chimney -----	10 -----	18
		Third

Third Proposition.—*The Calorific Rays which have already passed through a Screen of Glass, experience, in passing through a second Glass Screen of a similar nature, a much smaller Diminution of their Intensity than they did in passing through the first Screen.*

This proposition was proved by interposing, first one glass screen, and then two, and observing the difference in the effect. The experiments appear conclusive.

Fourth Proposition.—*The Rays emitted by a hot Body differ from each other in their faculty to pass through Glass.*

This proposition is an obvious consequence from the third, which can hardly leave a doubt that the calorific rays (like those of light) are of different kinds.

Fifth Proposition.—*A thick Glass, though as much or more permeable to Light than a thin Glass of worse Quality, allows a much smaller Quantity of Radiant Heat to pass. The Difference is so much the less as the Temperature of the radiating Source is more elevated.*

This proposition is proved by experiments made with glasses of different thickness employed as a screen; and its truth is sufficiently established, if these experiments be accurate. This curious fact, that radiating heat becomes more and more capable of penetrating glass, as the temperature increases, till at a certain temperature the rays become luminous, leads to the notion that heat is nothing else than a modification of light, or that the two substances are capable of passing into each other.

Sixth Proposition.—*The quantity of Heat which a hot Body yields in a given time by Radiation to a cold Body situated at a distance, increases, cæteris paribus, in a greater Ratio than the excess of Temperature of the first Body above the second.*

This proposition being at variance with the opinion of Mr. Leslie, and of several other philosophers, Dr. Delaroche thought it necessary to establish it by a great variety of experiments. These experiments leave no doubt of the fact; though they are not sufficient to enable us to deduce the rate at which the increase takes place.

I must acknowledge that this proposition appears to me somewhat puzzling. One is at first sight disposed to account for it by the inaccuracy of the thermometer as a measure of heat; but Dr. Delaroche, aware of such an objection, has remarked, that if we adopt Mr. Dalton's opinion with respect to the thermometer, so far from removing the apparent anomaly, it would only serve to make it greater.

Memoir

Memoir on the Determination of the Specific Heat of the different Gases. By MM. F. DELAROCHE, M.D. and J. E. BERARD.*

The subject proposed by the Institute as a prize at the meeting of the 7th January, 1811, namely, the determination of the specific heat of the gases, had previously attracted the attention of different philosophers, some of whom have treated of it in detail; yet so little progress has been made in the investigation, though the question proposed be sufficiently simple, that we are almost as far from being able to answer it with precision, as we were before it became the subject of investigation.

Crawford, as far as we know, is the first person who began the investigation. He published the result of his researches in 1788. At that time a great number of experiments had been made upon the specific heat of bodies in general. MM. Lavoisier and de Laplace had already published the result of their experiments on that subject, and had given a description of their calorimeter of ice; yet Dr. Crawford preferred the method of mixtures of water, or other bodies whose specific heat was considered as known. After many unsuccessful attempts, he thought that he succeeded by the following method. He procured two copper vessels, very thin, and of the same shape, size, and weight. He filled one of them with the gas that he wished to examine, and made a vacuum in the other. He then heated both in boiling water, and plunged both suddenly into cylinders containing a small quantity of cold water, but sufficient to cover them. He subtracted the heat communicated to this water by the exhausted vessel from that communicated by the vessel full of gas, and considered the remainder as the effect produced by the gas, or as its specific heat. He had taken great precautions to ensure the accuracy of his results; but it is quite evident, from the smallness of the change, that no confidence could be placed in them. The rise in the temperature of the water never exceeded 0.4° Fahrenheit. The following is the table of his results:—

Specific heat of Water	1.000
Atmospheric air	1.790
Oxygen	4.749

* Translated from the *Annales de Chimie* for January, 1813, vol. lxxxv. p. 72. This memoir gained the prize proposed by the Institute, and deserves particular attention. It overturns the theory of animal heat advanced by Crawford, and Lavoisier's theory of combustion.

Specific

Specific heat of Azote -----	0.793
Carbonic acid ---	1.045
Hydrogen -----	21.400

Before the work of Crawford appeared, Lavoisier and Laplace had made some experiments, which were not published till long after. They had employed their calorimeter of ice, through which they passed a current of gas contained in a serpentine, which enveloped on all sides the ice of the interior chamber. A thermometer placed at each extremity of the serpentine enabled them to observe the temperature of the gas when it entered and came out of the calorimeter. The gas was heated by passing through a serpentine surrounded with boiling water, before it entered into the calorimeter. These experiments, though susceptible of much greater precision than those of Crawford, were not free from very material imperfections. The method employed by these philosophers to take the temperature of the gases at its entrance into the calorimeter was insufficient, since the gas, in passing through the exterior coating of ice, would lose a portion of the heat which the thermometer had indicated, without contributing by that to melt the ice in the interior chamber. On the other hand, they do not say that they took any precautions to dry the gases upon which they made their experiments. These gases, charged with the humidity which the contact of water in the gazometers would necessarily communicate, no doubt deposited the whole of it when they passed through the calorimeter; but we know that vapor, when it condenses, gives out a great deal of heat. It is proper, however, to remark, that the temperature at which these experiments were made, being probably but little elevated above the freezing point, the quantity of vapor mixed with the gas would not be considerable. Lavoisier and de Laplace only subjected to these experiments oxygen and atmospherical air. They found for the specific heat of the first (that of water being 1.00) 0.65, and for the second 0.33; but Lavoisier acknowledges that the accuracy of these results cannot be entirely depended on.

Since that time, various attempts have been made to appreciate, by indirect means, the specific heat of some gases. Mr. Leslie has employed, in order to compare the specific heat of hydrogen and atmospheric air, a process founded on the following considerations. When a large receiver is partly exhausted of air, if air be allowed to enter into it, the dilated air which it contained will condense, and its temperature will be increased by a constant quantity, whatever gas enter into it; but the entering gas will absorb a part of this excess of heat,

heat, and the mixture will have a mean temperature between that of the entering gas and that which the air would have acquired if it had not been obliged to part with any of its heat. Now it is evident that this mean temperature will be so much the lower the greater the specific heat is of the gas which enters. The experiments made by Mr. Leslie have led him to conclude, that equal volumes of hydrogen and atmospherical air have the same specific heat.

The principle upon which this ingenious process is founded is not perfectly just; since it appears from the experiments of Gay-Lussac,* that part of the heat developed in this case comes from the gas that enters into the receiver. It appears, likewise, that some unknown circumstance has misled Mr. Leslie respecting the result of his experiments: for analogous experiments, made with the greatest care, have given different results to Gay-Lussac; and he did not observe that equality of effect which takes place, according to Mr. Leslie, when atmospherical air and hydrogen gas are made to enter into an exhausted receiver. Gay-Lussac, in these experiments, made use of two similar balloons, communicating with each other by a pipe furnished with a stop-cock. He made a vacuum in the one, and filled the other successively with different dried gases. In the centre of each of these balloons was a thermometer of spirit of wine. When the stop-cock was turned, the gas rushed from the full vessel into the empty one. He had taken precautions to render the velocity of the current equal in all cases. The thermometer of the first balloon sunk, and that of the second rose the same number of degrees; but that number varied according to the nature and density of the gases employed. Gay-Lussac, thinking that the specific heat of the gases subjected to these experiments was proportional to the rising and falling of the thermometers, thought himself entitled to conclude that the specific heat of equal volumes of the different gases was inversely as their specific gravity, and of the same gas directly as its density; but he only gave this opinion as a probable conjecture, without affirming any thing respecting its justness. In fact, the phenomena which take place in such cases are very complicated, and it is almost impossible to distinguish what depends upon the different conducting power of the gases from what depends upon their specific heat.

M. Gay-Lussac has discovered this himself, in the new memoir which he has lately published on the subject,* and in which he came to different results. He employed in these last experiments a very simple and ingenious method to de-

* Mem. d'Arcueil, i. 180.
no. 177.

† Ann. de Chim. lxxx. 98.
3 F

termine

termine the specific heat of the gases. It consists in passing to the centre of a small reservoir, containing a thermometer, a current of two different gases, the one hot, the other cold. Knowing the temperature of the two gases before their mixture, and that of the mixture, it was easy to infer the ratio between their respective specific heats. This process, besides that it does not give us the ratio between the specific heat of the gases and that of water, is attended with another inconvenience. When only small quantities of gas are employed, a great part of their heat is communicated to the vessels in which the mixture is made, which may lead to erroneous conclusions. Accordingly, as he made his experiments at first on the gases that can be most conveniently procured, such as air, hydrogen, carbonic acid, &c. which, as will be seen afterwards, do not differ much in their capacity for heat, he was induced to believe that the same volumes of all the gases had the same capacity. However, he afterwards published a note,* from which we see that he had brought his process to perfection by operating upon large quantities of gas. By that method he ascertained that hydrogen and carbonic acid have different specific heats, and the numbers which he assigns approach to those which we have ourselves obtained. This induces us to remark to the commissioners, that a first memoir having for its motto *Tectus magis aestuat ignis*, which contains our most important results, was deposited in the hands of the secretary of the Institute on the 3d of February, 1812, more than five months before that note of Gay-Lussac was published in the *Annales de Chimie*.

Among the attempts made to determine the specific heat of the gases, we ought to reckon the table drawn up by Mr. Dalton from principles purely theoretical, founded on this hypothesis, that the quantities of heat belonging to the ultimate particles of all elastic fluids ought to be the same under the same pressure and at the same temperature. His table is as follows:—

Hydrogen gas-----	9.382	Nitrous gas-----	0.777
Azotic gas -----	1.866	Oxide of carbon-----	0.777
Atmospheric air -----	1.759	Vapor of alcohol ----	0.586
Ammonia -----	1.555	Sulphureted hydrogen	0.583
Olefiant gas-----	1.553	Nitrous oxide gas ----	0.549
Oxygen -----	1.333	Vapor of nitric acid--	0.491
Carbureted hydrogen--	1.333	Carbonic acid-----	0.491
Aqueous vapor -----	1.66	Muriatic acid -----	0.424
Vapor of ether -----	0.848		

* Ann. de Chim. lxxiii. 106.

Such are the results of the investigation of this subject hitherto made. By comparing them together, it is easy to see how far they differ from one another. Unless we deceive ourselves respecting the justice of those results which we ourselves have obtained, it will be seen, by what follows, how far they all deviate from the truth.

CRITICAL ANALYSIS

OF RECENT PUBLICATIONS

IN THE

DIFFERENT BRANCHES OF PHYSIC, SURGERY, AND
MEDICAL PHILOSOPHY.

Appendix to Observations on the Contracted Intestinum Rectum : containing some additional Facts relative to that Complaint ; with several Cases, and two Engravings. By W. WHITE, Member of the Royal College of Surgeons, London, and one of the Surgeons to the City Infirmary and Dispensary, Bath. 8vo. Bath, 1813. pp. 53.

SOME time ago we gave an analysis of Mr. White's treatise on Contracted *Intestinum Rectum*. The ingenuity and practical utility of that treatise, we endeavored to impress on our readers. The subject, always of importance, had been brought more under public observation than heretofore, by the publication of Mr. Copeland; the immediate inducement, as it then seemed, to Mr. White's pursuing the inquiry. Since that period many cases have fallen under the care of Mr. White, nine of which are here related.

There are two points in this little volume principally to be looked to: one of these is a practical fact of some importance; the other assumes more the character of an hypothesis, though it is not directly hypothetical.

A marked trait in the contracted rectum, and constituting a prominent feature in the diagnosis, is that of the *faeces* being found to be lessened in their diameter. The occasional deviation from this, in advanced stages of the disease, when *faeces* of a natural size, at times, pass, Mr. White notices, with a view to prevent the practitioner mistaking the cases when this circumstance does arise; and as it appears mechanically contradictory, he enters into the following explanation of it.

"If the stricture should happen to be low in the rectum as not to allow room for the accumulation of *faeces*, it must appear evident that they

they will be found uniformly small in diameter, in proportion to the degree of stricture, while they continue to be discharged in a figured state. And also, when the stricture happens to be high up the rectum, so long as the gut below the stricture retains its natural expulsive power, an accumulation will be prevented, and the diminished size of the *feces* will continue. But as the disorder increases, the inferior portion of the intestine gradually loses that power; so that when the contraction becomes considerable, only a small quantity of *feces* pass at a time through the stricture, and not being sufficient to stimulate the lower part of the rectum, an accumulation goes on from time to time, until at length it becomes difficult to remove; when on these occasions *feces* of a natural size have sometimes been discharged."

It has now some time been the fashion, or rather, perhaps, has now become an admitted fact, that strictures in the urethra, by some, yet unexplained, sympathy, produce morbid actions in distant parts of the system, of a character, *à priori*, not at all referable to such a cause. Mr. White does not doubt but strictures of the rectum may excite derangement in remote parts of the intestinal canal, or in organs that are associated with it in the performance of its natural functions. The liver is the organ to which our author looks as most likely to undergo this sympathetic derangement. In two patients a tuberculated state of the liver was believed to be the consequence of stricture in the intestine; and as the opinion is in a measure new, we shall lay before our readers the whole of the third case, which goes, in the author's opinion, particularly to this point. In this the biliary secretion was disturbed, and the alvine evacuations were always of a light clay color, except when the patient was taking calomel.

"CASE 3.—Feb. 1812, E. Morgan, an unmarried woman, sixty-three years of age, complained of having been subject to pains about the os sacrum shooting down the hips, between four and five years. She had been always of a costive habit of body, seldom having any evacuation for four or five days, and not then without the aid of a strong purgative medicine. About a year ago she was attacked with a sudden hæmorrhage, which she supposed to have been a return of the catamenia in a most extraordinary and violent manner; but on the hæmorrhage recurring shortly after, she was convinced the discharge proceeded from the rectum; ever since which she has had frequent returns of the hæmorrhage; and upon that ceasing, a serous discharge supervened. Between five and six months ago she began to experience considerable pain and difficulty in passing her stools, attended with tenesmus, and almost constant pain in the gut: her strength was much reduced, with frequent flushings of heat, but her pulse was regular.

"On examination, I found great irregularity and induration in the rectum, about an inch from the anus, which extended some way up the

The gut, when a considerable contraction was discovered, but yet a sufficient passage to admit the tip of the finger being introduced: the contracted part had an irregular and indurated feel. That I might have the patient more immediately under my care, she was admitted an in-patient at the Bath City Infirmary on the 25th of February. The next day a small tent was introduced, and the following pills were prescribed:

Rx. Extr. conii, ʒifs.

Pil. hydrarg. ʒfs. M. f. pil. xxx æquales divid.

quarum capt. ij. mane et vespere.

" A clyster, with gruel and castor-oil, was also directed to be thrown up daily. Her diet—gruel, broth, arrow-root, and light puddings.

" Feb. 27th.—Has had several motions without the injection, and less pain—tent again introduced.

Capt. pil. extr. conii, et pil. hydrarg. j. mane et vespere, et quoque pil. opiat. gr. j. o. n. h. s.

" 28th.—Has a troublesome cough, breathing short, with wheezing. Omittr. pil. hydrarg. &c.

Rx. Liquor ammon. acet.

Aq. menth. pip. āā ʒifs.

..... puræ, ʒijj.

Syr. papav. alb. oxym. scillæ, āā ʒij. M. f. mist. Capt. coch. ij. ampl. 4ta. quaque hora. Repr. pil. opiat.—A tent introduced.

" 29th.—Breathing rather better, and less pain in the rectum. Repr. mixt. et pil. opiat.—A tent introduced. As the bowels had not been freely open, an injection was directed.

" March 1st.—Had a good night; the bowels have been moved in consequence of the injection, with scarcely any appearance of blood—A tent introduced.

" 2d.—Breathing much worse, and cough more troublesome—pulse quick: has had two or three small loose motions without any blood. Repr. med. et enema laxativ.

" 3d.—Her breathing better, and cough not so troublesome: had three motions from the injection, but no blood.

" 4th.—Much the same: has frequent loose stools, (so as to prevent introducing the tent) but unattended with pain.

" 5th.—She has still a frequent discharge of loose stools. Injecl. enema opiat.

" 6th.—Breathing much worse, with increase of wheezing, and the cough more troublesome; skin hot and pulse quicker; tongue white, and complains of thirst. A very large quantity of consistent fæces has passed. Applic. emp. canth. sterno. Repr. mixtur.; add spt. æther vitriol comp. ʒij.

" 7th.—Breathing somewhat relieved, but the feverish symptoms continue. Has had two small loose motions. Repr. mist. et capt. haust, anodyn. h. s.

" 8th.—Both breathing and cough better; pulse not so quick, and tongue cleaner. Has had three small motions with a little blood. Repr. enema opiat. On introducing a tent, I perceived a fætid discharge from the rectum, which I had not before noticed. Repr. med.

" 11th.—

" 11th.—Has very little uneasiness in the rectum, but general pains over the abdomen. Cough and breathing still troublesome, though in a slighter degree. Not so much heat on the skin, nor quickness of pulse. Repr. med. et enema opiat.

" 12th.—Less pain over the abdomen. Although there is less heat on the skin, she complains more of thirst. Has had some small loose motions. Repr. enema laxativ.

" 13th.—Has very little pain in the abdomen. The clyster occasioned several loose motions, which very much relieved her—a tent introduced.

" 14th.—Breathing more affected; has had several loose motions. Applicr. emp. canth. sterno, et repr. med.

" 15th.—Breathing somewhat relieved, but the cough still troublesome: has had two loose motions, besides what is found to pass away involuntarily on returns of cough—a tent introduced.

" 16th.—Had a restless night, from the difficulty of breathing and cough: passed several sanious colored loose motions. Repr. med.

" 17th.—Breathing and cough much the same, but now attended with an expectoration free and copious—has had two small loose motions of the same appearance as last. Repr. med. et enema laxativ.

" 18th.—Breathing much the same; a little bloody mucus is brought up with the cough: has had more uneasiness in the bowels. Two injections have been given without producing any effect—the injection was ordered to be repeated with the addition of a little murias sodæ.

" 19th.—Had no evacuation until she took some castor-oil this morning, which procured several motions: cough and breathing much the same. Repr. med.

" 20th.—Had a better night: breathing not so difficult; skin cool; pulse regular; tongue clean. Passed three stools without any pain. Repr. med.

" 22d.—Her breathing much better, and cough not so urgent: had a very good night; bowels open—a small tent introduced.

" 24th.—Continues better: bowels still in an open state, and the evacuations of a more natural consistence—a tent introduced.

" 26th.—Bowels having been confined yesterday has taken castor-oil, which procured three motions, one of them very copious—a tent introduced.

" 27th.—Her breathing and cough better: bowels open—felt a soreness in the rectum after the tent yesterday.

" 28th.—Feels better: has had two motions without pain—a tent introduced.

" 30th.—Having had no evacuation yesterday took castor-oil, which operated two or three times.

" 31st.—Complains of sickness, and the having brought up bile: had a motion this morning, followed by a little blood. The *scæd* discharge from the rectum has ceased.

Capt. mist. salin. card. \mathfrak{z} i. 4tis. horia. Capt. haust. Anodyn. h. s.—a tent introduced,

" April

" April 3d.—Sickness better : complains of pain over the abdomen. Took castor-oil yesterday, which procured several motions—a tent introduced.

" 5th.—Less pain in the abdomen : bowels open, and the *fæces* discharged without pain—a tent introduced.

" 9th.—A tent introduced.

" 11th.—Complains of having had a considerable soreness in the rectum since the last tent was introduced. Although, on examination with the finger, the contraction does not appear increased, yet there is a greater difficulty in passing the tent from the extreme irregularity on the internal surface of the gut—the tent was omitted. The bowels were kept open with castor-oil, and the evacuations continued to be discharged without pain or appearance of any blood. Her general health appeared also to be improving, and she was able to sit up a few hours daily, which she had not been able to do for a long time : her appetite was so much better as to render her very desirous of having a little animal food, which was complied with.

" On the 23d a tent was introduced, but could not pass it until I had previously ascertained the direction of the contracted part by introducing the finger, the irregularity of the surface continuing the same.

" 25th.—The tent occasioned considerable pain in the rectum, and a little blood followed its removal. She took castor-oil this morning, not having had a motion since the last tent was introduced.

" 26th.—Had several motions yesterday, and her bowels very open to-day : does not complain of any particular pain.

" 28th.—A small tent again introduced—the last time.

" 30th.—Complains of having had much soreness in the rectum since the last tent was introduced, and has had no motion. Rep. *enema laxativ*.

" May 1st.—Passed several motions. Had appeared to be rather weaker, her appetite having failed for the last day or two ; but no material alteration was observable until the 5th, when, on entering the ward in the morning, I was surprised to find so great a change in her countenance ; her breathing short ; pulse extremely feeble ; with every other appearance of a speedy dissolution. She died the same afternoon. The nurse informed me she had become suddenly worse in the night.

" *Appearances on dissection*.—On dividing the parietes of the abdomen, there were evident marks of peritoneal inflammation, and the intestines also exhibited a similar appearance, but more particularly the ilium, and its folds were glued together in several places, the consequence of inflammatory exudation ; and on its surface there were different patches of coagulable lymph : there was also some purulent matter in the pelvis. On separating the rectum from the sacrum, its posterior part gave way, appearing that only the peritoneal coat at this part of the intestine had remained ; the other coats having been destroyed by ulceration. The internal surface of the gut was extremely irregular, and its inner membrane entirely destroyed by ulceration ; which process had extended somewhat less than an inch from the anus, as far as the contracted portion of the rectum. The

muscular coat was very much thickened and indurated, exhibiting the usual cancerous appearance: and in other places (besides the posterior part already noticed) it appeared to be entirely destroyed, as well as the inner coat, by the ulcerative process. At the termination of the ulceration there was a considerable contraction of the gut, from the diseased state of the muscular coat having formed a complete thick cartilaginous ring; and a little below it the jagged edges of the inner coat projected; its lower portion, as before mentioned, being entirely destroyed by ulceration. Above the cartilaginous ring the intestine was somewhat dilated, its inner membrane having an inflamed appearance, which had extended about two inches up the gut. The muscular and peritoneal coats, at the back part of the superior portion of the rectum, were thickened and indurated, extending in a line along the sacrum for nearly three inches above the contraction; the thickening gradually lessening as it extended upwards. A great quantity of solid fæces was collected above the contracted part, and properly tinged with bile.

"About the middle of the convex surface of the liver there was a very large tubercle, with several lesser ones dispersed throughout its substance.

"The fundus uteri was red, and the fimbriated extremities of the fallopian tubes were in a state of ulceration; no doubt from having been exposed to the purulent matter which was collected in the pelvis.

"The lungs had a diseased appearance, and with some difficulty separated from the back part of the thorax."

We learn from the introductory part, that the alvine discharges were always of a light clay color in this woman, except when calomel was taken; but in the detail of the case, it does not appear that calomel was given under the direction of Mr. White, or the fæces noticed as regards color. Dissection certainly showed a tuberculated state of liver; but neither the history or dissection remove the hypothetical character of the opinion. The investigation will probably be further pursued, and the sympathetic connection between strictured rectum and tuberculated liver, we hope, will be established on more extended evidence.

Observations on Peritonitis, and on some other internal Inflammatory Affections. By THOMAS SUTTON, M.D. of the Royal College of Physicians, late Physician to the Forces, and consulting Physician to the Kent Dispensary.

(Continued from p. 336)

THE merit of the author in this part of his work, which consists in a relation of cases, is principally founded on his directing a successful mode of practice in complaints which often prove tedious, difficult of cure, and even fatal. A case

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or two will show the value of the author's observations and practice.

" A gentleman consulted me on the subject of some obscure pains he experienced on the right side, midway between the ribs and fore part of the ilium, which were not then increased upon pressure. He said he had, for some time, labored under a disease which his medical advisers in town had not formed any precise opinion about; but he had been cupped, used the warm bath, and had taken opening medicines, without perceiving any other than temporary advantage. He had since applied to another source, and been dissatisfied with the result. The patient complained that he felt uneasiness with any thing of a shaking motion; but as he came to me in his carriage, and did not immediately meet with me at home, he had driven about under the idea of falling in with me. I found his countenance good, the pulse natural; but he expressed himself to be extremely uncomfortable and low, with depression of spirits, want of appetite, and when he did eat he became worse after it. I directed some opening medicines, and a soap plaster to be applied to the part affected; but, before the medicines could be got home, I was sent for, and found the patient in considerable pain, augmented on pressure. He was directed leeches and fomentations to the part, and afterwards a blister, and the bowels to be freely acted upon. The pain wore off to a certain extent; but in two days I was sent for in some haste, and found the patient in great pain, in a profuse clammy sweat, with a pulse of 120. Under these circumstances, I judged it proper to recommend blood to be drawn to sixteen ounces, which quantity was exceeded, and which afforded much relief, though the blood was not sizzly, but tough. From this time the disease gradually got better, but returned twice, with the interval of a fortnight between the attacks. The third being violent, I considered it to be adviseable again to recommend venesection to some amount, which occasioned relief; but the second attack was comparatively mild, and the loss of blood was trusted to leeches. The other part of the treatment consisted in the use of warm fomentations, blisters, and purgative and aperient medicines, chiefly with sulphate of magnesia, and infusion of senna. The patient has had no further severe returns of this disease, though for some time he was frequently unwell, and obliged to use much caution in his mode of living and exercises. The disease, as appears, came on in a lurking obscure manner, was some considerable time before it arrived at a violent paroxysm, and was not subdued for upwards of six weeks, though much abated in the intervals of the attacks.

" The expressed seat of the disease was at a considerable distance from the kidneys, and in a line drawn from the anterior spinous process of the ilium, parallel to the linea alba. The seat of the disease is more particularly stated, because, previous to these violent attacks, the patient had perceived small quantities of blood to be discharged once or twice with the urine, though nothing of the kind had occurred during the period just detailed, when the secretion was copious, of proper color, and varying as it is known to do in attacks of fever,

and was every day inspected while any urgent symptoms remained. Afterwards the appearance of blood in the urine was again occasionally observed, though in inconsiderable quantities. This discharge was probably excited by the same cause as a similar one which was noticed in the following case, though originating from different organs."

"Mr. Hurt, apothecary and chemist, residing on Deptford Bridge, about a month previous to the attack, which will be more particularly adverted to, consulted me on the subject of a disease which had been very painful to him for some time, and of which this was the second attack, after a short interval. He described it to be about an inch and an half round the navel. He had been advised to apply leeches, to use fomentations, and to blister the part; from which remedies he thought himself somewhat relieved. Under the circumstances I found him in, I recommended him to keep his bowels well open, and if there should be any material return of the disease, to have blood drawn from the arm to the extent of from sixteen to twenty ounces, which the present state of the habit appeared to me to be capable of allowing. In about a month from this time I was again desired to see him. He stated, that he had never been well from the complaint he consulted me about, but that now he was in great torture. He had considerable febrile heat, coated tongue, and a pulse one hundred and ten and upwards, with nausea and vomiting. The local affection was in extent nearly circular, with a diameter of about three inches, making the navel its centre. The sensation of the patient was that of a burning heat, with shooting pains, and a feeling of great weight in the part. The patient had had recourse to leeches, blisters, and fomentations, as before, but with no effect. I recommended blood to be drawn to the extent of sixteen ounces, and the bowels to be kept open. He was afterwards bled five times, to twelve, ten, and eight ounces, as the symptoms appeared to require, without any satisfactory progress being made. In addition, the part was fomented with the decoction of poppies. This was the treatment pursued during the first week of my attendance, and to about the tenth day of the violent return of the disease. It was next determined to try the effects of more active purgatives than had hitherto been done, with the addition of small doses of opium; the latter for the purpose of relieving pain, and repressing the tendency to vomit. By this plan, the bowels appeared to be completely evacuated of their contents, but without any material amendment ensuing. Recourse was then had to considerable doses of opium to relieve the disease, which had certainly the effect of mitigating pain, while the patient was under its powerful influence; but it did not appear to diminish the disease otherwise. Local bleeding was then employed again, and a blister applied, but these produced no perceptible advantage. The disease had now continued about three weeks. The local affection was very little abated; the pulse was somewhat diminished in frequency; and a fulness and hardness painful to the touch in the part affected, within the limits above described, had become much more evident, and particularly attracted the attention of the patient. Under these circumstances,

stances, I suggested the use of a common emollient poultice, but found it increased the local affection considerably. On this report, I determined to recommend the patient to employ a lotion composed of equal parts of *aq. ammoniæ acet.* and water, with half an ounce of rectified spirits to eight ounces. In two days afterwards, I called, and was gratified to find the patient much amended. He stated, that, from the very first application of the lotion, he had experienced relief, and that his pain returned only occasionally, when the use of the lotion repressed it. From this time the patient might be considered to be convalescent. The only things afterwards advised, were to keep the bowels open, to be moderate in the use of food, to avoid fermented liquors, and to use the lotion as frequently as might be found necessary. Since which time, (about a year,) I have uniformly heard a good account of Mr. Hurt's health."

Several other cases are related, attesting the good effects of cold applications in peritonitis, and in some affections of the chest. One case even proves the advantage of cold sea-bathing in consumption. We were much gratified with this part of the work, and congratulate the author on his resolution in combating both vulgar and professional prejudice, as well as upon the success which attended his practice. What will the hot-house practitioners think of applying a cold lotion to the chest in consumptive cases, which Dr. Sutton very coolly proposes? He has favored us with some interesting particulars of the practice of Dr. Stewart, a clergyman, who has obtained such high reputation in Scotland for curing consumption, as to attract the notice of a noble family in London, who consulted him in consequence of his decided success. Will it be credited that part of his plan consists in applying cold vinegar and water to the chest daily, which he also recommends to be well rubbed?

The injurious consequences of wearing too much flannel are illustrated by a case in which the patient consulted Dr. Sutton on account of a cough which had troubled him for some time, and by which he was becoming weak and emaciated.

"After an attendance of about ten days, the symptoms had grown worse. The patient was now so weak that he could with difficulty leave his bed: he had a very harassing cough, with an expectoration of an uncertain character, hectic fever, and profuse perspirations, with a pulse of one hundred and twenty. About this time, in one of my visits, the conversation turned on the state of the patient's health some years before, which was represented to be delicate, and that he was subject to rheumatic affections in various parts of his body, on exposure to cold. On this account, he wore great quantities of flannel, which led me to inquire into the state of his present clothing. I found he was completely invested in flannels of various and the warmest kinds, and that he constantly wore several such garments.

As it appeared to me that this sort of clothing must be very prejudicial to him in his present state, and particularly by encouraging profuse perspirations, I recommended all but one of these garments to be dismissed, and, as soon as possible, to substitute for the remaining one a coarse calico waistcoat. After this change had been adopted, the patient very rapidly and completely recovered, which was plainly due to the diminished heat on the surface."

The remaining portion of the volume is devoted to the consideration of gout; and if personal experience is a recommendation, the doctor's authority is good, for his own sufferings in that complaint induced him to pursue bold and active treatment. In fact his own cure forms the chief part of the essay. He commences with some general observations upon the disease, which tend to dispose the reader to admit that something more may be done both in alleviating the pain, and even curing the disease, than merely leaving the patient to nature and despair. The remarks on this subject are supported by various authorities, and we fully concur with him in opinion that much may be done towards mitigating the violence, and removing the complaint, at least for a time.

The remedies from which he experienced the most decided benefit were strong purgatives. He afterwards, however, was so situated that he could not conveniently take them, and had recourse to a large dose of laudanum, which completely succeeded in subduing his gouty paroxysm.

From some experience, and also having seen the practice adopted by others, we have long been of opinion that opium taken in doses sufficiently large to ease the pain and induce sleep, followed up by suitable and adequate purgatives, are strongly to be relied upon in all cases of gout where the practitioner sees no indication to forbid their use. We are, therefore, pleased to find this practice, which at the same time we must remark is no new practice, corroborated by the statement of Dr. Sutton.

A Practical Synopsis of Cutaneous Diseases according to the Arrangement of Dr. Willan, exhibiting a concise View of the Diagnostic Symptoms, and the Method of Treatment.
By THOMAS BATEMAN, M.D. F.L.S. Physician to the Public Dispensary and to the Fever Institution.—8vo. pp. 342. Longman and Co. 1813.

CONSIDERING the advances made by the ancients towards a knowledge of cutaneous affections, it seems remarkable that so little should have been accomplished by the moderns in this interesting department of medical science. To the ancients

cients we are indebted for most of the names which at present distinguish cutaneous diseases, and to such authority, till very lately, we were compelled to resort for their description and treatment. Dr. Willan, the latter end of last century, presented us with the first number of a voluminous work upon this subject, of which he did not live to complete more than half the intended series. But that half was the most important; the general outline was sketched, though the master-hand was only put to the first part. In this publication he displayed an acquaintance with the writings of the ancients highly creditable to his erudition, and evinced an acuteness of perception, an accuracy of distinguishing, combined with scientific arrangement, worthy of the enlightened physician. From the rude mass of heterogeneous matter before him, he organized a rational system, and enriched it with new observations of his own. The difficulty of the subject is demonstrated by the fact, that eager as well-informed medical men usually are in the pursuit of objects which may signalize them, the subject of cutaneous diseases had received very little elucidation since the obscure writings of the Arabians, until Dr. Willan happily selected it as deserving his attention, and his success has shewn that his talents were equal to the laborious investigation. It is true that most practitioners were in some degree acquainted with the appearances, and knew something of the mode of treating some of the more frequent and prominent cutaneous diseases; but the most candid will be ready to allow that they often guessed at what is now reduced to certainty, and often acted empirically when they might have proceeded upon indubitable and scientific principles. If we were for a moment to admit, which indeed we cannot in truth, that the practice is not materially improved, there can be no doubt whatever that the knowledge of the nature and progress of cutaneous complaints is much advanced by Dr. Willan's valuable work. We can now at least promptly decide what the event of many cases will be, whether they are curable or not; and it is of not the least importance too, to give them a name, about which, what with the plates, the definitions, and the descriptions, we need not long hesitate. But Dr. Willan having projected eight orders of cutaneous diseases, only finished the description of four; and here would have been a lamentable deficiency indeed, had not an able successor in this line of practice immediately presented himself to occupy the chasm which would otherwise have occurred. Dr. Bateman, who, besides his well known intimate acquaintance with medicine, appears to have devoted a considerable degree of attention to cutaneous disorganization in particular, possessed the great advantage of enjoying

enjoying the confidence of Dr. Willan, witnessing his practice, and discussing his peculiar opinions and arrangement, has, with a zeal and promptitude which must ensure success, got out the volume before us.

In the preface he cautions us not to consider it as the completion of Dr. Willan's treatise. "Its sole purpose," he observes, "is to present an abstract of the classification proposed by that respected author, together with a concise view of all the genera and species which he intended that it should comprehend. The materials for the description of the first four orders have been obtained principally from Dr. Willan's publication, of which the first part of this synopsis may be regarded as an abridgment. Some additional facts, however, have been supplied from subsequent observation. The remainder of the matter has been derived partly from personal experience and research; but principally from a constant intercourse with Dr. Willan upon the subject of these diseases, during a period of ten years, while his colleague at the Public Dispensary, and from his own communications in his last illness."

Before quoting the definitions, it is right to state that a colored engraving, which for the subject is certainly beautiful, exhibits the eight forms of cutaneous eruptions, and also illustrates some of the genera and species in a very happy manner.

DEFINITIONS.

"1. *PAPULA* (*Pimple*), a very small and acuminate elevation of the cuticle, with an inflamed base, very seldom containing a fluid, or suppurating, and commonly terminating in scurf.*

"2. *SQUAMA* (*Scale*), a lamina of morbid cuticle, hard, thickened, whitish, and opaque. Scales, when they increase into irregular layers, are denominated crusts.

"3. *EXANTHEMA* (*Rash*), superficial red patches, variously figured, and diffused irregularly over the body, leaving interstices of a natural color, and terminating in cuticular exfoliations.

"4. *BULLA* (*Bleb*), a large portion of the cuticle detached from the skin by the interposition of a transparent watery fluid.

"* The term, *Papula*, has been used in various acceptations by the older writers, but the nosologists have nearly agreed in restricting it to the sense here adopted. Sauvages defines it, '*Phyma parvulum, desquamari solitum.*' (Nosol. Meth. class i. Synops. ord. ii. 6. See also Linnæi Gen. Morbor. class xi. ord. 4.)—In this sense also Celsus seems to have understood the term, although he uses it generally; for when he calls it a disease in which 'the skin is made rough and red by very minute pustules,' he means obviously dry papulæ; as by the word pustula he understands every elevation of the skin, including even wheals. (De Med. lib. v. cap. 28, § 15 and 18.)"

"5. *Pus*...

" 5. *PUSTULA* (*Pustule*), an elevation of the cuticle, with an inflamed base, containing *pus*.

" Four varieties of pustules are denominated in this arrangement as follows:

" *a. Phlyzaciūm*, a pustule commonly of a large size, raised on a hard circular base, of a vivid red color, and succeeded by a thick, hard, dark-colored scab.*

" *b. Psyrdraciūm*, a small pustule, often irregularly circumscribed, producing but a slight elevation of the cuticle, and terminating in a laminated scab.† Many of the psydracia usually appear together, and become confluent; and, after the discharge of pus, they pour out a thin watery humor, which frequently forms an irregular incrustation.

" *c. Achor*, and

" *d. Favus*. These two pustules are considered by the majority of writers from the Greeks downwards, as varieties of the same genus, differing chiefly in magnitude.‡ The *achor* may be defined a small acuminate pustule, containing a straw-colored matter, which has the appearance and nearly the consistence of strained honey, and succeeded by a thin brown or yellowish scab. The *favus*, or *κηρion*, is larger than the *achor*, flatter, and not acuminate, and contains a more viscid matter; its base, which is often irregular, is slightly inflamed; and it is succeeded by a yellow, semi-transparent, and sometimes cellular scab, like a honey-comb, whence it has obtained its name.

" 6. *VESICULA* (*Vesicle*), a small orbicular elevation of the cuticle, containing lymph, which is sometimes clear and colorless, but often opaque, and whitish or pearl-colored. It is succeeded either by scurf, or by a laminated scab.

" * The derivation of this term, 'απο τῆ φλυω, φλυζω, sive φλυσσω, quod *fervere* significat, et *ebullire*,' (Gorræi Def. Med.) would render it sufficiently appropriate to elevated and inflamed pustules, if we had not possessed also the interpretation left by Celsus: 'φλυζακιον autem paulo durior pustula est, subalbida, acuta; ex qua quod exprimitur, humidum est. Ex pustulis vero nonnunquam etiam ulcuscula fiunt, aut aridiora, aut humidiora: et modo tantum cum prurigine, modo etiam cum inflammatione aut dolore; exitque aut pus, aut sanies, aut utrumque. Maximeque id evenit in ætate puerili; raro in medio corpore; sæpe in eminentibus partibus.' (De Medicina, lib. v. cap. 28, § 15.)"

" † As the *Phlyzacia* were denominated from the heat of the eruption, so the *Psyrdracia* received their appellation from the opposite quality, 'quasi ψυχρὰ ἰδρακία, id est, *frigida* seu *frigefactæ guttula*,' says Gorræus.—The psydracia are enumerated among the eruptions peculiar to the head by Alexander and Paul, and some other Greek writers; but Galen and others mention them as common to other parts of the body. (See Alex. Trall. Op. lib. i. cap. 5. Paul. Ægin. lib. iii. cap. 1. Actuarius, lib. vi. cap. 2.)"

" ‡ See Aëtius, tetrab. ii. serm. ii. cap. 69.—Alex. Trall. lib. i. cap. 8 and 9.—Paul. Ægin. de Rē Med. lib. iii. cap. 3.—Oribas de Loc. Affect. lib. iv. cap. 12."

" 7. *TU-*

"7. **TUBERCULUM** (*Tubercle*), a small, hard, superficial tumor, circumscribed, and permanent, or suppurating partially.

"8. **MACULA** (*Spot*), a permanent discoloration of some portion of the skin, often with a change of its texture.

"The following terms are used in their ordinary acceptation, viz.

"9. **Wheal**, a rounded or longitudinal elevation of the cuticle, with a white summit, but not permanent, nor containing a fluid, nor tending to suppuration.

"10. **FURFUR** (*Scurf*), small exfoliations of the cuticle, which occur after slight inflammation of the skin, a new cuticle being formed underneath during the exfoliation.

"11. **SCAB**, a hard substance covering superficial ulcerations, and formed by a concretion of the fluid discharged from them.

"12. **STIGMA**, a minute red speck in the skin, without any elevation of the cuticle. When stigmata coalesce, and assume a dark-red or livid color, they are termed *Petechia*."

As many of our readers may not be acquainted with Dr. Willan's arrangement, we shall lay it before them, and then subjoin a specimen of Dr. Bateman's valuable performance, which ought to be in every one's hands.

"The diseases of the skin were arranged by Dr. Willan in eight orders, according to their external forms above defined, as in the following table.

Order I.—PAPULÆ.

Strophulus.	|	Prurigo.
Lichen.	|	

II.—SQUAMÆ.

Lepra.	|	Pityriasis.
Psoriasis.	|	Ichthyosis

III.—EXANTHEMATA.

Rubeola.	|	Roseola.
Scarlatina.	|	Purpura.
Urticaria.	|	Erythema.

IV.—BULLÆ.

Erysipelas.	|	Pompholyx.
Pemphigus.	|	

V.—PUSTULÆ.

Impetigo.	|	Variola.
Porrigio.	|	Scabies.
Ecthyma.	|	

VI.—VESICULÆ.

Varicella.	|	Miliaria.
Vaccinia.	|	Eczema.
Herpes.	|	Aphtha.
Rupia.	|	

Order

VII.—TUBERCULA.

Phyma.	|	Sycosis.
Verruca.	|	Lupus.
Molluscum.		Elephantiasis.
Vitiligo.		Frambœsia.
Acne.		

VIII.—MACULÆ.

Ephelis.		Nævus, Spilus, &c.
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Where every part of a work is excellent, we are spared the necessity of criticism, and can have no hesitation about selecting specimens, for there is no occasion for choice. We cannot abridge, for Dr. Bateman has condensed his information as much as possible: it only remains for us, then, to recommend the work in the most unqualified manner. At the same time we must not be supposed to insinuate that the work is perfect, for we have no doubt that the learned author will very shortly acquire still more extensive practical knowledge upon the subject; but we consider it the only book extant that contains a comprehensive yet explicit account and scientific arrangement of the diseases of the skin; keeping always in mind that Dr. Willan's great work was only half completed.

We think Dr. Bateman might have said more upon Lupus, for in proportion as the disease is rare, and of difficult cure, he should have exerted himself to collect more particulars than he has accomplished. His alleged reason appears to us merely a *ruse* to avoid delay in getting out his book: he hastily observes, "Of this disease (Lupus) I shall not treat at any length, for I can mention no medicine which has been of any essential service in the cure of it; and it requires the constant assistance of the surgeon, in consequence of the spreading ulcerations in which the original tubercles terminate." We have seen a very severe case of this formidable disease, which had extended over nearly half the body, and was gradually advancing, completely checked, and finally destroyed, by the application of caustic. We have no doubt Dr. Bateman will have more to say upon this disease on a future occasion, and that he will not slur over the diseases resembling syphilitic appearances, although not always connected with venereal poison, as his laudable haste in furnishing the public with the present volume has probably induced him to do on this occasion. *Non omnia possumus omnes*, and Dr. B. has achieved more in a given time than his warmest friends could have expected. He will therefore, after the manner in which we have stated the impression his book made upon us, no doubt pardon these hints.

Some readers will not purchase without a sample, and, as we before observed, the work will not admit of any curtailment, we shall copy the author's account of *Lepra*, the first genus of the second order *SQUAMÆ*.

"The term *Lepra* is here appropriated solely to the leprosy of the Greeks, as described by the more accurate of those writers. It is characterised by 'scaly patches, of different sizes, but having always nearly a circular form.*'

"1. *Lepra vulgaris*, the ordinary species of the disease in this country, commences with small, round, reddish, and shining elevations of the skin, at first smooth, but within a day or two exhibiting thin white scales on their tops. These gradually, sometimes rapidly, dilate to the size of half-a-crown, still retaining their oval or circular form, and are covered with shining scales, and encircled by a dry, red, and slightly elevated border. In some cases these scales accumulate so as to form thick prominent crusts. If the scales or crusts are removed, the skin appears red and shining, being very smooth, and free from the cuticular lines in the beginning, but marked, in the advanced stages, with long deep lines and reticulations, not always coinciding with those of the adjoining surface.

"The *lepra* most commonly commences on the extremities, where the bones lie nearest to the surface, especially below the elbow and the knee, and usually on both arms, or both legs, at the same time. From these points it gradually extends, by the formation of new and distinct patches, along the arms or thighs, to the breast and shoulders,

"* The confusion which has every where prevailed in the use of the terms *lepra* and *leprosy*, seems to have originated principally with the translators of the Arabian writers after the revival of learning. The Greeks agreed in appropriating the appellation of *λεπρα* to a scaly eruption (as its etymology dictated): most of them deemed it the highest degree of *scaliness*, exceeding in this respect the *Lichenes*, *Psora*, and *Alphos*; and those who were most minute in their description, stated that 'it affects the skin deeply, in *circular* patches, at the same time throwing off scales like those of large fishes.' (See Paul. Ægin. de Re Med. lib. iv. cap. 2; and Actuarius, de Meth. Med. lib. ii. cap. 11: also Aëtius, tetrab. iv. serm. i. cap. 134; and Galen. Isagoge.) This was sufficiently clear; but those who translated the works of the Arabians into Latin, fell into the extraordinary mistake of applying the Greek term to a *tubercular* disease, which had been actually described by the Greeks under the appellation of *Elephantiasis*; and they applied the barbarous term *Morphea*, together with *Scabies* and *Impetigo*, to the scaly diseases of the Greeks above enumerated. Whence their followers, who detected the error, spoke of the *Lepra Arabum* as well as the *Lepra Græcorum*; while the less accurate confounded every foul cutaneous disease under the term *leprosy*. The Arabians themselves do not employ the word *Lepra*, but have described these different diseases under appropriate appellations."

and

and to the loins and sides of the abdomen. In several cases I have observed the eruption most copious and most permanent round the whole lower belly. The hands also become affected, and in many cases the hairy scalp; but the face is seldom the seat of large patches, although some scaliness occasionally appears about the outer angles of the eyes, and on the forehead and temples, extending from the roots of the hair. In the more severe cases, the nails of the fingers and toes are often much thickened, and become opaque and of a dirty yellowish hue, and are incurvated at the extremities: their surface is also irregular, from deep longitudinal furrows, or elevated ridges.

"When the eruption of lepra is moderate in degree and extent, it is not attended with any uneasy sensations, except a slight degree of itching when the patient is heated by exercise, or becomes warm in bed; and a little occasional tingling in certain states of the atmosphere.* When it is generally diffused, however, and there is a considerable degree of inflammation in the skin, it is accompanied with extreme soreness, pain, and stiffness, which I have sometimes seen so great as to render the motions of the joints impracticable, and to confine the patient to bed. Yet even under these circumstances there is no constitutional disturbance; and if no medicine be employed, the disease of the skin may continue for months, or even years, without any material derangement of the system.

"It is not easy to point out the causes of this disease, which appear, indeed, to be very various; for it is one of the most common affections of the skin, at least in this metropolis, and occurs at all periods, and under every circumstance of life.† It is certainly not communicable by contagion, nor does it appear to originate from confinement to certain kinds of diet, such as fish, dried or salted meats, &c. since it is not endemic in districts where these are habitually used, and occurs frequently where they are almost unknown. But, like some other cutaneous affections of a more transient character, it is certainly produced occasionally by the influence of particular articles of food and drink, which operate through the idiosyncrasy of individuals. I have met with one gentleman in whom spices or alcohol speedily produce it. The original attack in him occurred after eating

* * Hippocrates remarks that some *Lepræ* itch before rain: lib. Περὶ Συμπτῶν."

† It is difficult, therefore, to account for the opinion expressed by the late Dr. Heberden, respecting the extreme rarity of lepra in this country. 'De vero scorbuto et lepra, nihil habeo quod dicam, cum alter rarissimus est in urbibus, altera in Anglia pene ignota; unde factum est ut hos morbos nunquam curaverim.' (Comment. cap. 23.) And still more difficult to explain the statement of Dr. Cullen, whose definition of lepra will include both the dry and humid tetter (Psoriasis and Impetigo) with the proper scaly lepra; but who nevertheless affirms that he had never seen the disease. Nosol. Meth. class iii, gen. 88, note."

some hot soup, containing spice, the first spoonful of which excited a violent tingling over the whole head, which was followed by the leprous eruption, which soon extended to the limbs. In another case, in a young gentleman of nineteen, the disease commenced after taking copious draughts of cream; and vinegar, oatmeal, and other species of food, to which it has been ascribed, have probably given rise to it occasionally: but these are all anomalies, and are only referable to peculiar idiosyncrasy.* In some cases it has commenced after violent and continued exercise, by which the body had been much heated and fatigued.

"Dr. Willan has imputed the origin of lepra to cold and moisture, and to certain dry sordes on the skin. It has seldom occurred to me, however, to witness the disease in bakers, laboratory men, and others who work among dry powdery substances; while I have observed a considerable number of cases in young ladies, and in persons of both sexes in respectable ranks of life, by whom every attention to cleanliness was scrupulously paid. Where cold and moisture have excited the eruption of lepra, the predisposition to it must have been peculiarly great. On the whole, the causes of this disease are involved in much obscurity. There is obviously an hereditary predisposition to it in some individuals.

"2. *Lepra alphoides*†. This is a less severe form of the disease than

"* Some poisonous substances taken into the stomach have produced an eruption of lepra. The poison of copper is stated to have speedily excited it in several persons at the same time, in one of whom it continued for a month, but disappeared in the others in about ten days. See Med. Facts and Obs. vol. iii. p. 61."

"† The Greeks have described the *Alphos* as a milder disease, being more superficial, and less rough, than the lepra: (see Galen, de Sympt. Caus. lib. iii.—Aët. tetrab. iv. serm. i. cap. 134.) and the description of it given by Celsus accords with the appearances of the *L. alphoides* above stated. 'Αλφός vocatur, ubi color albus est, fere subasper, et non continuus, ut quædam quasi guttæ dispersæ videantur. Interdum etiam latius, et cum quibusdam intermissionibus, serpit.' (de Medicina, lib. v. cap. 28.) Celsus no where employs the term lepra.

"This scaly *Alphos*, which was deemed by Hippocrates a blemish, rather than a disease (Περὶ Πλευρῶν, sect. 15), was distinguished from another white affection of the skin, the *Leuce*, which was not scaly, but consisted of smooth shining patches, on which the hairs turned white and silky, and the skin itself, and even the muscular flesh underneath, lost its sensibility. The *Leuce* was a disease of an incurable nature. (Hipp. Περὶ Πλευρῶν, lib. ii.) Celsus, although pointing out this distinction, includes the *Leuce* and the *Alphos* under the same generic title, *Vitiligo*. (loc. cit.)

"It may be remarked that the Arabians distinguished these two affections by different generic appellations, calling the *Alphos* *Albokat*, and

than the preceding. It differs chiefly in the small size of the patches, which seldom extend beyond the diameter of a few lines, or become confluent,—in the minuteness and greater whiteness of the scales,—and in its limitation to the extremities. This variety of lepra is most common in children. It is tedious and difficult of cure, like the former, and requires similar treatment.

“It would be superfluous to enumerate the catalogue of useless medicines which have been recommended from ancient times for the cure of lepra: I shall, therefore, confine my attention to those, of the beneficial agency of which I can speak from experience. It is necessary to premise, however, that there is no one remedy, nor any invariable plan of treatment, which will succeed in lepra, under all the circumstances of its appearance in different instances; and that great errors are committed by prescribing for the name of the disease. The circumstances to which I allude more particularly, are the different degrees of cutaneous excitement, or inflammatory action, which accompany the disease in different habits; and which, if carefully attended to, afford an important guide to the most successful application of remedies.

“In the less irritable conditions of the leprous eruption, such as the *L. alphoides* usually exhibits, as well as a few cases of the *L. vulgaris*, a gently stimulant mode of treatment, at least externally, is requisite; though in all cases of lepra the diet should be light and moderate, and heating liquors should be avoided, especially malt liquors and spirits; for every indulgence in these points will be felt in the aggravation of the symptoms. A frequent use of the warm bath, with which a moderate degree of friction may be combined, contributes to remove the scales, and to soften the skin; or, if the eruption be confined to the extremities, local ablution and friction may be sufficient. These cases are benefited by the use of the sulphur waters of Harrowgate, Leamington, Crofton, and other well-known springs, both internally and externally, and by the warm sea-water bath. In fact, these gently-stimulant ablutions are often sufficient, if persevered in during several weeks, to remove the modifications of lepra of which I am now speaking.

“But if the scales adhere tenaciously, or are accumulated into thick crusts (see Def. 2), then some more active lotion must be con-

and the *Leuce Albaras*, with the epithet *white*. Their translators have called the former *Morphæa*, and included the *Leuce* and *Elephantiasis* under the appellation of *Lepra*. By retaining these distinctions in recollection, the accounts of the older writers may be read, while the confusion arising from their misapplication of names may be avoided.

“It appears probable, that the *Leuce* was the leprosy of the Jews, described in Leviticus, chap. xiii. See Greg. Horstii Obs. Med. lib. vii. p. 330.—Leon. Fuchsii Paradox. lib. ii. cap. 16.—Th. Campanellæ Ord. Medic. lib. vi. cap. 23.—Hensler, vom Abendländischen Aussatz, p. 341.”

joined

joined with the warm ablution, or with the application of steam, in order to clear the surface. Lotions of diluted alcohol, of sulphurated potass, or the decoction of dulcamara, will aid the exfoliation; and the thick crusts may be softened and loosened by lotions containing a portion of the liquor potassæ, or of the muriatic acid. When these are removed, the cuticle may be restored gradually to its healthy condition, by the unguentum picis, or the unguentum hydrargyri nitratæ diluted with saturnine cerate, or simple ointment; or lotions containing a small proportion of the oxymuriate of mercury may be substituted. The ointments should be applied at night, and washed off in the morning with warm water, or a slight saponaceous lotion.

"The same cases will be accelerated in their progress towards a cure, by the use of those internal remedies which tend to support the strength, and to stimulate the cutaneous vessels. For this purpose the arsenical solution,* recommended by Dr. Fowler, is often extremely beneficial, in doses of four or five drops, which may be slowly increased to eight, and persevered in for a month or more.† Pitch, administered in the form of pills, is productive of a similar good effect, where the cutaneous circulation is very inert; but both these medicines are liable to aggravate the eruption, where it is connected with much irritability of the skin. The solution of oxymuriate of mercury has appeared to have some efficacy in these inert states; and in thin and delicate girls, of relaxed habit, affected with the lepra alaphoides, the vinum ferri, or the tartrate before-mentioned, has been taken with much advantage.‡

"One of the most effectual remedies for lepra, however, under all its varieties, is the decoction of the leaves and twigs of the solanum dulcamara, which was introduced to the notice of British practitioners by Dr. Crichton.§ This medicine is at first administered in doses of

"* Preparations of this mineral have a direct tendency to stimulate the cutaneous circulation, and to inflame the skin; and are, therefore, altogether inadmissible in the irritative forms of lepra."

"† This active medicine being now not only sanctioned by the profession in general, but by the Pharmacopœia of the College, it will be enough to state, that, in these smaller doses, which experience has proved to be sufficient, it may be taken without any inconvenience. Another preparation, introduced by the late Dr. de Valangin, is kept at Apothecary's Hall, under the name of solutio solventis mineralis, and is equally efficacious in smaller doses."

"‡ If in any case the tinct. lyttæ prove useful in lepra, it would probably be in these more inert instances. But it is to be observed that Dr. Mead, who originally recommended this medicine, was speaking, not of the scaly Lepra, but of the Leuce, or of the Elephantiasis. See his *Medicina Sacra*, cap. ii."

"§ See his communication to Dr. Willan. (*Treatise on Cutan. Diseases*, p. 145.) His formula has been adopted by the College in the late edition of the *Pharmacopœia*."

two or three ounces thrice every day, which are gradually augmented, until a pint is at length consumed daily. When there is a degree of torpor in the superficial vessels, the same decoction, made with a larger proportion of the shrub, is advantageously employed as a lotion; but if there is much inflammatory disposition, this and every other external stimulus must be prohibited.

"Where this irritable state of the disease exists, indeed, (and it is the most frequent,) nothing more stimulating than tepid water, or thin gruel, can be used for the purposes of ablution; and the arseniates, pitch, &c. above mentioned, must be excluded. The disease, under this condition, will be certainly aggravated by sea-bathing, by the external use of the strong sulphureous waters, or of any irritant, as I have frequently observed; but it will be alleviated by the internal employment of sulphur, with soda or nitre, or the hydrarg. sulphuratus niger with an antimonial, especially when conjoined with the decoction of dulcamara. The caustic potass, or liquor potassæ of the L. Pharmacopœia, in the dose of twenty or thirty drops, alone, or in combination with the precipitated sulphur, is likewise beneficial; and the tinctura veratri, given in such doses as not to disorder the bowels, has occasionally removed this state of the disease.

"When the skin is highly inflamed, thickened, and stiff, of a vivid red color, intermixed with a yellowish hue, (where the cuticle is separating in large flakes,) the heat, pain, and itching are often extremely troublesome, and the motion of the limbs is almost impracticable. The most effectual relief is obtained, in these cases, by gently besmearing the parts with cream, or a little fresh and well washed lard, or butter.

"3. *Lepra nigricans* is a more rare variety of the disease, differing externally from the *L. vulgaris* chiefly in the dark and livid hue of its patches, which is most obvious in the margin, but even appears through the thin scales in the area of each patch.* The scales are more easily detached in this form of lepra, and the surface remains longer tender, and is often excoriated, discharging bloody serum, till a new incrustation is formed.

"This variety of lepra occurs in persons whose occupations expose them to the vicissitudes of the weather, and to a precarious diet, with fatigue, and watching. It is cured by nutritive food, with moderate exercise, followed by the use of the bark, mineral acids, and sea-bathing."

* The *Melas* of the ancients was deemed a superficial affection, resembling the *Alphos*, except in its color. '*Melas colore ab hoc differt, quia niger est, et umbræ similis: cætera eadem sunt.*' (Celsus, loc. cit.) Possibly it included the *Pityriasis versicolor*."

MEDICAL AND PHILOSOPHICAL INTELLIGENCE.

ROYAL SOCIETY.—On Thursday the 1st of July, a paper by Sir Humphry Davy was read, containing farther observations on the new detonating compound of chlorine and azote. After recovering from the accident which happened to him during his original experiments on this substance, Sir Humphry made a variety of experiments to determine its properties and composition. Its specific gravity is 1.623. When in contact with water, it congeals at about 40°; but this does not happen when it is kept separate from water. It detonates in nitric acid, and in ammonia; gives out azote in muriatic acid; and is likewise decomposed in sulphuric acid. Attempts were made to decompose it in exhausted glass vessels in the state of vapor; but they were unsuccessful. In general, the glass was broken by an explosion; and when that did not happen, the proportion of chlorine and azote evolved could not be determined, on account of the unknown proportion of atmospheric air that remained in the vessel. When the detonating compound is brought in contact with mercury, a white powder is formed, and azotic gas disengaged. In one experiment a detonation took place, which obliged him to work upon smaller quantities. The white powder was found to be a mixture of calomel and corrosive sublimate; and it sublimed entirely without the disengagement of any gas, indicating the absence both of hydrogen and oxygen. Muriatic acid does not destroy the color of solution of indigo in sulphuric acid; but if it be impregnated with chlorine, it destroys a determinate quantity of the blue color, according to the proportion of chlorine present. The same thing happens when the detonating compound is dissolved in muriatic acid. This furnished a method for determining the proportion of chlorine contained in the detonating compound. The result of all these methods of analysis is, that the detonating compound is composed of

Chlorine	.	.	.	.	.	.	91
Azote	.	.	.	.	.	.	9
							<hr/>
							100

reckoning by weight, or if we reckon by bulks of

Chlorine	.	.	.	.	.	.	400
Azotic gas	.	.	.	.	.	.	100
							<hr/>
							500

Sir H. Davy proposes to call this detonating compound *azotane*.

At the same meeting were read some observations on a new comet, observed by Captain Hill, in the Hon. East India Company's service.

On Thursday, the 8th of July, the following papers were read:

1. A catalogue of the positions of a number of circumpolar stars by the Astronomer Royal, Mr. Pond.

2. An analysis of a substance thrown out of Mount Vesuvius, by
J
James

James Smithson, Esq. This substance had been sent to Mr. Smithson when in Italy in 1794, in order to determine its nature; and he ascertained, by a number of trials, that it consisted chiefly of sulphate of potash. This result was published soon after in an Italian Journal, but no subsequent notice was taken of it by mineralogists. Mr. Smithson was induced to examine it with more accuracy lately, and the result of his experiments is, that it consists of sulphate of potash, sulphate of soda, sulphate of ammonia, muriate of ammonia, muriate of copper, and muriate of iron, with some earthy matter. Mr. Smithson, by way of introduction to his paper, gives a view of his opinions about the origin of the earth. In his opinion, it was originally a sun, or a comet, and was brought to the state in which it is at present by undergoing combustion at the surface. The volcanoes are the relics of this original combustion, and the materials were the metallic bases of the earthy substances of which the primitive strata are composed. As a proof that these primitive strata have been formed by combustion, he mentions that garnets, hornblende, and other crystals found in them, contain no water, and that little or no water is to be found in the primitive strata themselves.

3. Observations, by Dr. Marcet, on the cold produced by the evaporation of sulphuret of carbon. This liquid evaporates more rapidly than any other, and produces in consequence a greater degree of cold. A spirit of wine thermometer, having its bulb surrounded with cotton cloth or lint, if dipped into sulphuret of carbon, and suspended in the air, sinks from 60° to 0 . If it be put into the receiver of an air-pump, and a moderate exhaustion be made, it sinks from 60° to -81° (I have seen it myself in these circumstances sink from 74° to -72°). If a tube containing mercury be treated in the same way, the mercury may be readily frozen, even in summer. The drier the air in the receiver is, the more easily is the cold produced. Hence the presence of sulphuric acid may be of some little service in removing the vapor from the air in the receiver previous to exhaustion; otherwise it occasions no increase of the cold.

4. Observations on the composition of fluor spar, and on its acid basis, by Sir Humphry Davy. The author begins his paper with an historical detail of the attempts made by himself, and Gay-Lussac and Thenard, to decompose fluoric acid, and the ill success of these attempts. It appears from the compounds into which fluoric acid enters, that the weight of an integrant particle of it does not exceed 1.05, supposing an atom of oxygen to weigh 1. Hence it follows that if it is a compound of oxygen and an inflammable base, the base can only have the 20th part of the weight of the oxygen. This supposition he considers as unlikely to be correct. He therefore supposes that fluoric acid, like muriatic acid, is a compound of hydrogen and an unknown supporter of combustion, to which he gives the name of fluorine. He relates many experiments made in order to obtain fluorine in a separate state, but none of them were attended with success. As chlorine has the property of decomposing several oxides, and driving off their oxygen, it occurred to him as likely that it might in certain

cases drive off fluorine. Fluates of silver and fluates of mercury, with this view, were acted upon by chlorine. The fluoric acid (or fluorine) was disengaged, and horn silver and corrosive sublimate formed; but no fluorine was set free. When the experiments were made in glass retorts, the glass was corroded, and silicated fluoric acid gas obtained. When they were made in platinum vessels, the metal was corroded, and a red or brown powder formed. It would seem from the trials made that fluorine has so violent an action on all other bodies that it is very difficult, if not impossible, to obtain it in a separate state. The author promises to continue this subject in a subsequent paper.

5. A paper, by Mr. Alman, on the method of freeing equations from surds, though the roots be pretty high in their dimensions. From the nature of this paper it could not be read at full length, so that it is not possible to give any idea of the method employed by the author; but he referred to a method previously given in the Irish Transactions by Mr. Money, which he considers as general, and which, probably, constitutes the foundation of his own.

The Society adjourned till the 4th of November next.

Galvanic Battery.—On Saturday, the 2d of July, J. G. Children, esq. put in action the greatest galvanic battery that has ever been constructed. It consisted of 20 pair of copper and zinc plates, each plate 6 feet in length, 2 feet 8 inches in breadth. Each pair was fixed together at the top by pieces of lead cut into ribbons. A separate wooden cell was constructed for each pair. The plates were suspended from a wooden beam fixed at the ceiling, and were so hung by means of counterpoises that they could be easily raised or let down into the cells. The cells were filled with water, containing a mixture of sulphuric and nitric acids. At first the acids amounted to 1-60th of the water; but more was gradually added till it amounted to the 30th. Leaden pipes were attached to the two extremities of the battery, and conveyed the electricity out of doors to an adjoining shade, where the experiments were made. The power of this battery was very great; though I am not certain whether it increased in proportion to the size of the plates. It ignited about 6 feet in length of thick platinum wire. The heat produced was very intense. It melted platinum with great facility. Iridium was likewise melted into a globule, and proved to be a brittle metal. The ore of iridium and osmium was likewise melted, but not so completely. Charcoal was kept in a white heat in chlorine gas, and in phosgene gas; but no change took place in either of these gases. Neither tungsten nor uranium underwent any change. A very singular fact was pointed out by the sagacity of Dr. Wollaston, and succeeded upon trial. A greater length of thick platinum wire was ignited than of platinum wire of a much smaller size. This Dr. Wollaston had previously ascertained in his own minute galvanic batteries, consisting of a single pair of small plates.

Volatility of Cerium.—The volatility of this metal, which had been previously inferred from the experiments of Vauquelin, was fully confirmed in Mr. Children's laboratory at Tonbridge. A quantity

tity of oxalate of cerium had been prepared in order to obtain from it the oxide of the metal. This oxalate was exposed in a charcoal crucible within a tobacco-pipe mouth to the strongest heat that could be raised in a forge. In this heat the cerium was volatilized so completely that not the least trace of it remained.

Action of the Agate on Light.—Dr. Brewster has now established, by numerous experiments, that the nebulous light of the agate has the same relation to the bright image as the extraordinarily refracted image has to the ordinarily refracted image of all doubly refracting crystals. There is still, however, no appearance of the nebulous light being produced by a higher refractive power than the bright image. All the phenomena of polarization are produced when the plate of agate is less than the $\frac{1}{16}$ th of an inch; and the nebulous light, when in its evanescent state, can be revived by depolarization with mica, in every respect like one of the images formed by double refraction. The colored appearances in the agate, to which mineralogists have given the name of iridescence, furnish a series of the most singular results, arising, apparently, from the mechanical structure of different laminæ, and seem to open up a new field in physical optics. He is at present examining various specimens, in order to give a greater degree of generality to the results previous to laying them before the public.

An Account of the Explosion of Inflammable Air which lately occurred in the Collingwood Main Colliery.

On Saturday the 17th of July, at two o'clock, p. m. in the Collingwood Main Colliery, situated upon the river Tyne, near North Shields, a very considerable quantity of inflammable air, or carbureted hydrogen gas, came into contact with the pitmen's candles, which caused a most tremendous explosion, by which eight persons were killed upon the spot, and two severely wounded and scorched. The following particulars of this melancholy disaster were communicated verbatim at the above-mentioned colliery, a few days after the accident, to the writer of this, by Henry Hall, who fortunately escaped, though in the midst of imminent danger.

At the time when the explosion took place, the above-named Henry Hall, and five other pitmen, were proceeding with burthens of timber through the old workings or excavations (the proper road being obstructed by a creep,*) in the full confidence of safety, having been assured by Mr. Hope, the under viewer, that there was no fear of the "mine firing." In an instant this young man, Henry Hall, and the five pitmen who were with him, were by the explosion thrown upon their faces; and the shock was so great as to deprive him of sensation, as well as volition, till the after-blast, or after-damp, as it

* In working the coal, the pitmen leave pillars, in the form of parallelograms, for the support of the roof. If these pillars are narrow, and the floor of the mine soft or tender, they are apt to sink into the floor, and cause such an approximation as to prevent ventilation, &c. This is technically called a *creep*.

is called, gave him such excitement that he faintly recollects being urged like a ball along the floor of the mine with incredible velocity. Soon after this he was again deprived of sensation, in which state he continued for about twenty minutes, till he breathed the pure atmospheric air upon the bank, at the top of the shaft, to which place his brother had carried him, who descended into the mine as soon as he possibly could, upon hearing the explosion, at the risk of his own life, for the purpose of saving that of his brother, or of any other person whom he could find. H. Hall reports, that after he recovered sensation he felt his whole body racked with pain, the burnt places giving him no uneasiness, comparatively speaking; and that his suffering continued without intermission for two days. Bad as H. Hall's case was, the other five pitmen who were with him had not even such an escape, for four of them were instantly killed, and Ralph Stokell so dangerously bruised and burnt in several places, that his life was for some time despaired of.

At a distant part of the mine, where some other pitmen were employed in taking up metal plates, timber, &c. Mr. Hope, the under viewer, Mr. Wild, the overman, and two pitmen, were suffocated by the choak-damp, or carbonic acid gas. Mr. Wild had wandered at least a hundred yards before he met his death by suffocation.

Upon an explosion taking place in a coal-mine the choak-damp is very rapidly driven through all parts of the colliery from those places where it had accumulated, and the explosion is always followed by another commotion, of a still more dangerous nature, viz. the "back draught," as the miners term it. The back draught is that impetuous current of air which rushes most violently from all sides within the mine, like "the voice of mighty thunderings," to the spot where the explosion occurred, so as to overcome the vacuum which had been effected by means of the explosion.

The following is a list of the persons who were killed:—

Mr. William Hope, under viewer, leaving a wife and four children.

Mr. Ralph Wild, overman, a wife and four children.

James Campbell, pitman, a wife and child.

Ralph Hope, pitman.

Robert Clark, pitman.

Thomas Miller, pitman.

- George Richardson, and William Richardson, pitmen. These two young men were brothers; and, having lost their parents, they had the filial goodness to support their grandmother, now in her 103d year, by their industry.

By the choak-damp a considerable number of horses were suffocated. In this melancholy list the dreadfully uncertain state of the pitmen is clearly demonstrated. Poor Mr. Hope, the under viewer, was heard to exclaim, in astonishment or despair, a moment before his dissolution, "God have mercy upon us; the pit has fired!" Besides the sufferers, there were fourteen or fifteen men in the pit, who, as if by a miracle, were saved. They had been employed in a distant part of the colliery; and after the explosion wandered on in darkness and stupefaction till by good fortune they chanced to arrive at that part of the mine where there was a sufficient proportion of atmospheric air to support respiration.—*Annals of Philosophy.*

IMPERIAL

IMPERIAL INSTITUTE OF FRANCE.

Account of the Transactions of the Imperial Institute of France for 1812.

(Continued from p. 256.)

Zoology, Anatomy, and Animal Physiology.—M. le Chevalier Geoffroy-Saint-Hilaire, who has examined at various intervals the numerous family of bats, and has made us acquainted with many interesting species, proposes to give a general table of them. He has prefaced this undertaking with a dissertation on the rank which these singular animals ought to hold among the mammalia. They were long considered as intermediate between quadrupeds and birds. It is equally obvious that they hold an intermediate place between the quadrumania and carnivorous animals. Among the numerous arrangements proposed by naturalists, there are some, as that of Linnæus in his last editions, and that of Brisson, in which the bats are classed along with the quadrumania; in others, as that of Linnæus in his first editions, and that of Klein, they are placed with the small carnivorous animals, or eaters of insects, as the mole and the hedgehog. Some, as Storr and Cuvier, place them at the head of carnivorous animals, before the insect eaters just mentioned, and immediately after the quadrumania; with this difference, however, that Cuvier distinguishes them more particularly, and makes a subdivision of them. Others, as Ray, Blumenbach, Lacepede, and Illiger, constitute them a separate order; and this order is placed by Ray and by Lacepede in some measure out of the arrangement: by Blumenbach between the quadrumania and the other *inguicula*, at the head of which this naturalist places the *rongeurs*. Finally, M. Illiger places them before the carnivorous animals, at the head of which are placed, as in the arrangement of Cuvier, the devourers of insects.

It is easy to see that all these combinations will depend upon those organs to which each naturalist has paid the greatest attention. Those who have chiefly attended to the skeleton, to the intestines, to the organization of the feet, to the form of the nails, to the grinders, have considered the bats as analogous to carnivorous animals (and this is the opinion at present most followed); while those who have attended only to the fore-teeth, to the position of the *mammæ*, to the hanging penis, have considered them as analogous to the quadrumania.

M. Geoffroy, in the work of which we have spoken, insists more than usual upon these last relations, to which he thinks sufficient attention has not been paid. He shows particularly that the singular elongation of the anterior extremities, the general tendency of the skin to become excessively wide, and the peculiar properties which are the consequence of this in the bats, both with respect to their sensations and motions, require us to place these mammalia in a separate order; while, at the same time, their striking resemblance to the quadrumania, and to the carnivorous animals, requires that this order should be placed between them. We may look with interest to the subdivision of this order, and to the history of the species, which M. Geoffroy has promised.

M. de

M. de la Mark, employed at the Museum of Natural History in teaching every thing which concerns the animals destitute of vertebræ, published, some years ago, the work which serves as a basis to his course. He explains in it, according to his own method, the classes, orders, and genera, of these numerous animals: but as travellers have since discovered many genera and species, as anatomists have more completely explained the structure, and as the meditations of la Mark on the subject have made him discover various new relations among these animals, he has published an abridged table of his course, after his method in its most perfect state, in which he satisfies himself with giving the characters of the greater divisions, and simply enumerating the names of the genera.

He follows in their arrangement the degrees of complication, beginning with the most simple animals. Supposing that those which have no visible nerves only move in consequence of their irritability, he calls them *apathic animals*. He gives the names of *sensible animals* to the other animals without vertebræ, and of *intelligent animals* to those which have vertebræ. To his old classes, now well known to naturalists, he adds the *cirrhypeda*, which include the *glands-de-mer*, and other analogous animals, and which he places between his annelides and his mollusca; that of the *epizoaires*, or intestinal worms, which he places among his apathic animals; and the *infusoria*, or microscopic animals without visible mouth or intestines. He leaves the *echinodermes* in his *radiaires*, and among the apathic animals, with a greater degree of simplicity than the intestinal worms. We regret that we have not room to notice the other changes introduced by M. de la Mark into his orders, nor the numerous additions which he has made to the list of genera; but naturalists will not fail to look for them in the work itself.

Notwithstanding the success of the anatomical investigations of animals without vertebræ for several years back, there still remained a family in which the fundamental organs were not well known. It is the family called *echinodermes*, which comprehends the star-fish, and other analogous genera. The Class having proposed a prize for the perfecting of this branch of comparative anatomy, it was gained by M. Tiedeman, Professor in the University of Landshut. The memoir of this skilful anatomist makes us accurately acquainted, for the first time, with many particulars respecting the organization of these singular animals. A species of circulation is easily observed between their organs of digestion and those of respiration, without, however, offering a complete double circle. Nor can the branches be followed in the exterior organs, nor in those of motion. It appears even, according to M. Tiedeman, that a quite different vascular system is distributed to those numerous peduncles which in these animals serve for instruments of locomotion.

The organs of respiration differ much in different genera. In the holothuria they represent hollow trees, whose branches fill and empty themselves with water from without, and are interlaced with a vascular net. In the stars and urchins the water penetrates immediately into the cavity of the body, and moistens all the parts of it.

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This beautiful work, accompanied by plates exquisitely finished by M. Münz, Doctor of Medicine, appeared to the Class to deserve the prize, by the number of new facts well authenticated which it presents, and by the great progress which it has made to the intimate knowledge of the echinodermes, though it has not completely answered the question proposed relative to their circulation.

A family much more simple in its organization than the echinodermes, but much more numerous in species, namely, the corals, and other animals composed of a solid basis, has been particularly studied by M. Lamouroux, both with respect to the species and the methodical arrangement. This naturalist has made a great collection of those whose basis is not stony, and which present forms so agreeable, and often so singular; and comparing with much care the form, the mutual position, of the cells from which the polypi issue, and all the other visible differences of these animals, he proposes to add twenty-eight new genera. This is an important work for completing the system of animals; but it does not, from its nature, admit of an abridged analysis. We are anxious for its speedy publication.

M. Cuvier, proposing soon to begin printing the great book on comparative anatomy with which he has been occupied for so many years, has presented to the Class a table of the divisions according to which the animal kingdom will be distributed in that work. Naturalists have been long struck with the great differences which separate animals without vertebræ from each other, while animals with vertebræ resemble each other in so many respects. Hence a great difficulty in generalizing that branch of comparative anatomy, while it is easy to generalize what relates to the animals with vertebræ. But this difficulty has suggested its own remedy. From the manner in which the propositions relative to each organ are always grouped, M. Cuvier concludes that there exist among animals four principal forms. The first is that which is known under the name of animals with vertebræ; and the three others are nearly similar to it in the uniformity of their respective plans. The author calls them *mollusca*, *articulated animals*, and *radiated animals*, or *zoophytes*. He subdivides each of these forms or branches into four classes, from motives nearly similar to those which have produced the four classes generally adopted among the animals with vertebræ. He has drawn from this disposition, in some respects symmetrical, a great facility in reducing under general rules the differences of organization.

The comparison which the same author has made of the osteology of the animals with vertebræ, has given him ideas respecting the bony structure of the heads in this class, which he has likewise presented to the Class.

It had been for some time observed that the oviparous animals with vertebræ, that is to say, birds, reptiles, and fishes, had certain common relations in their structure which distinguished them from the mammalia. M. Geoffroy-Saint-Hilaire had even presented some years ago an elaborate essay on the subject, of which an account was formerly given, in which, among other things, he had shown the

identity of the structure of the heads of oviparous animals, and the resemblance in the numerous pieces which enter into their composition, with that of those which we distinguish in the *fœtus* of *mammalia*, where, as is known, the bones are much more subdivided than in adults.

M. Cuvier, adopting the views of M. Geoffroy, has tried to determine in an accurate manner to what bone of the head of *mammalia* corresponds each group of bones in the head of the different oviparous animals; and he conceives he has succeeded, by joining to the analogy of the *fœtus* of the first the consideration of the position and of the functions of the bones; that is to say, by examining what organs they protect, to what nerves and vessels they give passage, and to what muscles they furnish attachments.

M. Jacobsen, Surgeon-Major in the armies of the King of Denmark, has made known to the Class an organ which he discovered in the nostrils of quadrupeds, with which no anatomist seems to have been acquainted. It consists in a narrow sack placed along the canal of the nose, defended by a cartilaginous production, covered internally by a mucous membrane, doubled in part by a glandular tissue, receiving remarkable nerves, with distinct divisions of the first pair, and which open most commonly into the palate, behind the fore-teeth, by a canal which passes through the hole called *incisive* by anatomists. This organ does not exist in man, and is more distinct in most herbivorous animals than in the carnivorous. We must suppose that it is connected with some of those faculties which nature has given to quadrupeds, but denied to our species, as that of rejecting poisonous substances, of distinguishing the sex, the state of heat, &c.

The particular history of animals is enriched with important works and interesting observations.

M. de Humboldt, Foreign Associate, has published the first volume of his *Observations on the Animals of America*, in which he has inserted not only his different researches on the condor, the electric eel, the crocodile, and many other objects of which we have spoken in our preceding analyses; but he has likewise given several new memoirs, namely, on the apes of the New World, of which Buffon and Gmelin only made known 11 or 12 species, but which Humboldt, uniting his observations with those of Azzara and Geoffroy-Saint-Hilaire, makes 46. He has recently read to the Class another memoir intended for his second volume, in which he describes new species of serpents that he found in Guyana.

The tempests which agitated the sea last winter threw ashore several large cetaceous fish upon our coasts. The Class appointed, as a commission to examine the facts which were received respecting these animals, MM. le Comte Lacepede, Geoffroy-Saint-Hilaire, and Cuvier.

These naturalists have observed that several of these animals were formerly unknown, and that this subject, which might be interesting to our fisheries and our commerce, deserved to draw the attention of government. They gave a description of a species thrown ashore in
great

great numbers near St. Brieux. M. Lemaout, naturalist and apothecary in that city, having collected with much care all the essential parts, it was easy to recognise a species of dolphin hitherto unknown to naturalists, and of which there only existed a bad figure in the treatise on fishes by Duhamel. It is distinguished by the globular form of the head, almost similar to an ancient helmet. Its length is about 20 feet.

We noticed last year the researches of M. Lamouroux on the innumerable and very small eels, known at the mouths of some of our rivers by the name of *montée*, and we announced the probability that they might belong to some of the little known species of this genus. M. Lamouroux has determined by new experiments that the *montée* is the fry of the *pimperneau*, a species of eel noticed by Lacepede in his history of fishes, and which is distinguished from the others by its pectoral fins being hollowed out like the wings of bats.

Our associate M. de la Billardiere, who employs himself in bringing up bees, having observed one whose abdomen was larger than usual, found in it a white worm, which M. Bosc examined. The body of this worm was white, divided into twelve rings, flattened below, terminated at one extremity by two large tubercles, pierced each with an oval hole, and at the other by two soft points. Under the tubercles is a transverse slit. M. Bosc, regarding this slit as the mouth, considers the part terminated by two points as that where ought to be the anus; and ranging the animal among intestinal worms, he makes a new genus of it, under the name of *dipodium*. He admits, however, that it is possible that the organs may in fact be reversed, and then the worm would much resemble the larvæ of flies with two wings. There is reason to believe, from the observations of Latreille, that the larva of one of these flies, (the *canops ferruginosa*) lives in the interior of the drones. It is very remarkable that so large a worm should inhabit the body of an insect so small as a bee.

The portion of digestion which takes place in the stomach must have early attracted the attention of physiologists, and recourse was had successively to all the powers of nature to explain it. It was long ascribed to the muscular trituration of the stomach; but Reamur having remarked that food contained in incompressible tubes, open at the two ends, was digested like other food, the general opinion since that time has been that the food was dissolved by means of a juice secreted by the stomach.

The Committee who undertook to make enquiry into, and ascertain the extent of the Process practised by Messrs. Delahoyde and Lucett for the Relief of Persons afflicted with Insanity, and to provide the means of paying the expense of such enquiry, have published their first Report.* It consisted of the Duke of Kent, the Duke of Sussex, Lord Dundas, Earl Fitzwilliam, Lord Milton, Viscount Melville, the Duke of Bedford, the Earl of Cork, and seven

* Chapple, Pall-Mall, 1s.

other gentlemen. Being informed by Dr. Harness that the government receiving-house at Hoxton contained the greatest number of the most confirmed lunatics, and having procured a list of them, the Committee on the 7th of June held their meeting at the said receiving-house. They then made an arrangement with Messrs. Delahoyde and Lucett, as to terms for receiving, in the first instance, *four patients* into their care, and afterwards such further number as might be thought proper.

On the 27th of June, *John Braily*, being one of the selected list, and who appeared to the Committee to be more violent if possible than the rest, heavily chained and handcuffed, with an horse-cloth, by way of covering, about his waist, was conducted to Sion Vale. Braily, by the list, was described as coming from his Majesty's ship the *Phoenix*, and it appeared that he had been received at Hoxton on the 18th of September, 1809, from whence, after remaining there twelve days, he had been removed to Bethlem Hospital, and there continued a year and eleven days, when he was, on the 11th of October, 1810, returned to Hoxton as an incurable maniac, and there remained till he was removed to Sion Vale.

William Matters had, it appears by the list, been a marine on-board the *Revenge*, and was sent to Hoxton the 16th of April, 1808, and after remaining there seven days, was sent to Bethlem Hospital, where he continued one year one month and seven days, and then returned as incurable to Hoxton, and, after remaining there four years and two months, was conducted to Sion Vale, viz. on the 30th of July.

James Cardiff, formerly a marine on-board the *Sussex*, was, as appears by the list, sent to Hoxton the 22d of February, 1810; and from thence, at the end of a month and twenty days, to Bethlem, where he remained a year and ten days, and was then returned to Hoxton, and continued there two years three months and six days previous to his removal to Sion Vale, which was on the said 30th of July.

Daniel O'Keefe had been quarter-master-serjeant in the 47th regiment, and confined at Hoxton, from whence he was conveyed to Bethlem, and in October, 1812, discharged as incurable, as appears by a letter from the War Office, to John Ridge, esq. the agent to the regiment, dated the 14th of October, 1812; and was discharged from the service by reason of his having been reported incurably deranged in his intellect; as appears by a letter to Mr. Ridge, dated Horse Guards, 21st of November, 1812, signed Harry Calvert. O'Keefe was then put upon the out-pension list of Chelsea Hospital, by an order dispensing with his personal appearance before the board, and being under the care of his wife at Thatcham, was by her consent removed to Brentford; and after being examined by their royal highnesses the Dukes of Kent and Sussex and Dr. Harness, was placed at Sion Vale under the care of Mr. Delahoyde.

At a meeting of the Committee, on the 7th of August, Dr. Harness was requested to take the trouble to inspect the state of these four patients at Sion Vale, which was accordingly done, as appears by his Report, dated the 27th of August, 1813.

"Upon the 10th of August, 1813, I visited the patients at Sion Vale,

Vale, accompanied by Dr. Weir, Naval Medical Inspector of Hospitals, when we found *Cardiff* assisting in brewing beer for the use of the family—continued in conversation with him some minutes, after which Dr. Weir, who had been in the habit of seeing him almost weekly during his confinement at Hoxton, pronounced him to be in a better state than he recollected ever to have seen him. Dr. Weir observed that he had frequently seen *Cardiff* employed in the service of the family at Hoxton.

“ We afterwards saw *Brailly* walking in the back garden, but I am sorry to observe not in the quiet composed state I had been accustomed to find him on my former visits; he being particularly talkative, complaining of his situation, and being constantly annoyed by numerous people, mostly women, relating their complaints to and of him; upon which I asked him, if he felt himself better than when at Hoxton; to which he replied that he certainly did; but that he did not know how long he might continue so, as he found his head becoming much confused, which observation occasioned Mr. Delahoyde to remark that he should again undergo the curative process in the evening. On Saturday the 21st instant, Mr. Delahoyde called on me at the Transport Office, to inform me that *Brailly* had undergone the curative process on the evening of the 10th instant, and that he had derived considerable benefit therefrom.

“ Upon the 25th, I visited Sion Vale, when I found *Brailly* much more calm and collected than when seen by Dr. Weir and myself upon the 10th instant. Conversed and walked in the garden with him more than a quarter of an hour, during which time he conducted himself with great propriety, but occasionally expressed himself with more than usual rapidity, but in language strictly decorous.

“ Upon the 10th instant saw *O’Keefe* and *Matters* working in the garden; they both appeared composed and reconciled to their situation. Dr. Weir thought *Matters* improved.

“ Each of them, after being talked to a short time, reverted to his peculiar complaint, viz. *O’Keefe* to the loss of his hair, and *Matters* to his being distended by air.

“ On my visit of the 25th instant, I could not discover that *O’Keefe* had made any progress to amendment.

“ *Cardiff* and *Matters* I consider improved; they both bearing me to converse with them upon those subjects on which they had rested their principal complaints; and which subjects could not before have been touched upon without exciting considerable emotion.

“ J. HARNESS.”

The following is a copy of the minutes of the Committee, held at Sion Vale, the 15th of September, 1813, present the Duke of Kent, Thomas Smith, Esq. and Dr. Harness.

“ The Committee now assembled, having conversed with and examined the four public patients at this place, with a view to form their judgment of them, came to the following opinion.

“ *Brailly*, certainly more calm and collected than on the 25th ultimo, or at any time when seen by Dr. Harness since his arrival at Sion Vale.

“ *O’Keefe*, perfectly calm, and his general health improved, but recollection still much impaired.

"Cardiff, much better, but does not appear wholly free from the influence of the particular cause to which he attributes his complaint.

"Matters does not appear to labor under the least symptoms of complaint."

The process itself is reserved by them from the public; but having been detailed by Mr. TARDY, of Marchmont Stuart, in our Number for August last, we consider these cases as mere exemplifications of his mode of treatment, and in that point of view they merit the notice of our readers.

Philosophical Society of London.—On Wednesday, October 6th, the anniversary of this Society was celebrated. The following gentlemen were elected officers and council for the year ensuing:—

President.—J. C. Lettsom, M. and LL.D. F.R.S. F.A.S. &c. &c.

Vice-Presidents.—J. Taunton, F.A.S., J. J. B. Beaumont, F.A.S., George Rees, M.D., J. Adams, M.D. F.L.S., J. Sowerby, F.L.S. G.S. W.S. &c., J. Hamilton, M.D.

Treasurer and Secretary.—T. J. Pettigrew, F.L.S.

Curators.—W. C. Pettigrew, J. Hare, junior.

Registrar.—J. Meers.

Orator.—Dr. George Rees.

Council.—W. Bullock, F.L.S., T. Bedder, J. Hare, R. Thompson, J. B. Brown, B. Clarkson, J. P. Heath, F. K. Cromwell, W. Henley, H. Patten, C. Holloway, W. Clarke, J. Collins, J. Andrewes, T. Lewis, R. Saumarez, T. Bittlestone, J. Wright.

The Anniversary Oration was delivered at half-past three o'clock, by Dr. Lettsom, which it is expected will be published.

Surrey Institution.—The following arrangements have been made for Lectures in the ensuing season:—Mr. J. Mason Good on the Philosophy of Physics, to commence on Friday the 5th of November, and to be continued on each succeeding Friday; Dr. Thompson on Chemistry, to commence on Tuesday, November 9, and to be continued on each succeeding Tuesday; and Mr. Bakewell on Natural and Experimental Philosophy, to commence early in January 1814.

The excellent Society for the Relief of Widows and Orphans of Medical Men in London and its vicinity, held its Anniversary Festival for 1813, on the 29th of October, and was numerous and most respectably attended.

The income of the Society for the last twelve months, ending the 15th of September, was as follows:

By subscriptions of members and donations	£325	8	0
From funded property	601	9	0
	£926	17	0

In the course of last year, the treasurer has been enabled to purchase 2000*l.* stock, three per cent. consols; which brings the present capital of the Society to 24,400*l.* three per cent consols, producing the annual sum of 612*l.*, to which stock an increase is made every half year; it possesses also 200*l.* navy five per cents, producing annually 10*l.*; total annual dividends at present 622*l.*

The sum distributed among widows and orphans during the present year has been 357*l.* 10*s.*

The number of members belonging to the Society is 295.

LONDON

LONDON PRICES OF DRUGS.—OCT. 22.

(To be continued regularly.)

	£.	s.	d.	£.	s.	d.	per		£.	s.	d.	£.	s.	d.	per
Aloes Barbadoes, from	21	0	0	to 22	0	0	C.	Gum Guaiacum, from	0	2	6	to 0	4	6	C.
— Cape	9	10	0	to 10	0	0	—	— Mastic	0	4	6	to 0	0	0	lb.
— Succotrina ..	20	0	0	to 0	0	0	—	— Myrrh	15	0	0	to 18	0	0	C.
— Epatica or E.I.	10	0	0	to 12	0	0	—	— Olibanum	8	0	0	to 10	0	0	—
Angelica Root	9	10	0	to 10	10	0	—	— Oppoponax ..	80	0	0	to 0	0	0	—
Alkanet Root	9	5	0	to 9	10	0	—	— Sandrac	6	10	0	to 7	7	0	—
Antimony Crude ..	3	15	0	to 4	5	0	—	— Seneca Garbled	5	2	0	to 5	5	0	—
Aqua Fortis	S.	0	8	to D.	1	1	lb.	— Tragacanth ..	48	0	0	to 50	0	0	—
Arrow Root fine ...	0	2	0	to 0	3	6	—	— Jalap	0	4	0	to 0	0	0	lb.
— ordinary	0	1	0	to 0	1	6	—	— Ipecacuanha	0	14	0	to 0	14	6	—
Arsenic Red	6	10	0	to 6	15	0	C.	— Isinglass Book	0	11	6	to 0	12	0	—
— White	3	12	0	to 3	15	0	—	— Leaf	0	11	6	to 0	12	0	—
Balsam Capivi	0	5	0	to 0	5	6	lb.	— Long Staple ..	0	11	6	to 0	12	0	—
— Peru	0	15	0	to 0	16	0	—	— Short Staple ..	0	11	6	to 0	12	0	—
— Tolu	0	12	0	to 0	0	0	—	— Manna Flakey ...	0	8	0	to 0	8	6	—
Bark Jesuits Com. ..	0	2	0	to 0	3	0	—	— Sicily in Sorts ..	0	5	0	to 0	0	0	—
— Second	0	4	0	to 0	5	0	—	— Musk China	0	17	0	to 0	18	0	oz.
— Quil or best ..	0	7	0	to 0	8	0	—	— Nux Vomica	2	0	0	to 2	2	0	C.
— Red	0	7	0	to 0	10	0	—	— Oil of Vitriol	0	0	3	to 0	0	0	lb.
— Yellow	0	3	0	to 0	4	6	—	— Opium East-India ..	0	19	6	to 1	0	0	—
Borax refined E.I. ..	5	10	0	to 6	0	0	—	— Turkey	1	2	0	to 0	0	0	—
— English	0	2	8	to 0	0	0	lb.	— Pink Root	0	5	0	to 0	0	0	—
— unrefined or Tinc.	6	0	0	to 0	0	0	C.	— Quicksilver	0	4	11	to 0	0	0	—
Camphire refined ..	0	6	9	to 0	0	0	lb.	— Rhubarb East-India	0	3	0	to 0	5	0	—
— unrefined	24	0	0	to 25	0	0	C.	— Russia	0	14	0	to 0	0	0	—
Cantharides	0	12	3	to 0	12	6	—	— Saffron Spanish ...	1	10	0	to 1	15	0	—
Cardamoms (best) ..	0	7	6	to 0	0	0	lb.	— French	1	10	0	to 0	0	0	—
Cassia Buds	12	0	0	to 0	0	0	C.	— Sago	3	0	0	to 3	5	0	C.
— Fistula W.I. ...	12	0	0	to 0	0	0	in bond	— Sal. Ammoniac	10	10	0	to 0	0	0	—
— Lignia	12	0	0	to 0	0	0	—	— Sarsaparilla	0	3	0	to 0	0	0	lb.
Casterum American ..	2	8	0	to 2	10	0	lb.	— Sassafras	10	0	0	to 0	0	0	T.
— Russia	11	0	0	to 0	0	0	—	— Scammony Aleppo ..	1	7	0	to 0	0	0	lb.
Castor Oil per bottle	0	3	9	to 0	4	3	bo	— Smyrna	0	13	0	to 0	0	0	—
1½ lb.	0	3	9	to 0	4	3	bo	— Senna	0	2	6	to 0	4	6	—
Coculus Indicus	3	0	0	to 0	0	0	C.	— Seeds Anni Alicant	6	6	0	to 7	0	0	C.
Colocynth Turkey ..	0	4	6	to 0	0	0	lb.	— Coriander English	1	10	0	to 1	16	0	—
Columbo Root	2	15	0	to 3	0	0	C.	— Cummin	5	5	0	to 5	10	0	—
Cream of Tartar	8	10	0	to 9	10	0	—	— Fenugreek	2	5	0	to 2	10	0	—
Gallangal East-India	5	0	0	to 0	0	0	C.	— Shellack	6	10	0	to 7	0	0	—
Gentian Root	4	12	6	to 0	0	0	—	— Sticklack	6	10	0	to 7	0	0	—
Ginseng	0	1	6	to 0	0	0	lb.	— Snake Root	0	16	0	to 0	0	0	lb.
Grains of Guinea	5	10	0	to 6	0	0	C.	— Soap Castile or Spanish	10	0	0	to 11	0	0	C.
Gum Ammo. Drop ..	15	0	0	to 20	0	0	—	— Spermaceti refined ..	0	2	7	to 0	0	0	lb.
— Lump	8	0	0	to 9	0	0	—	— Tamarinds West-India	8	10	0	to 9	0	0	C.
— Animi	3	10	0	to 7	10	0	—	— Tapioca Lisbon	0	0	8	to 0	1	0	lb.
— Arabic E. I. ..	2	0	0	to 4	0	0	—	— Turmeric Bengal ..	3	3	0	to 0	0	0	C.
— Turkey Fine	8	10	0	to 9	9	0	—	— China	4	5	0	to 4	15	0	—
— Barbary	3	10	0	to 3	12	6	—	— West-India	6	10	0	to 7	0	0	—
— Assafetida	15	0	0	to 18	0	0	—	— Verdigris Wet	0	3	6	to 0	0	0	lb.
— Benjamin	8	10	0	to 35	0	0	—	— Dry	0	5	10	to 0	6	0	—
— Cambogium ..	20	0	0	to 26	0	0	—	— Crystallized	0	8	6	to 0	9	0	—
— Copal scraped ..	0	2	0	to 0	3	6	lb.	— Vitriol Roman	0	0	7	to 0	0	0	—
— Galbanum	15	0	0	to 16	0	0	C.	— Foreign white	3	10	0	to 3	15	0	C.

Price of Vials per Gross.—8 oz. 70s.—6 oz. 58s.—4 oz. 47s.—3 oz. 43s.—2 oz. 36s.—1 oz. 30s.—½ oz. 24s.

OBSERVATIONS.

At recent Sales of Merchandize by Auction, Messrs. Pistor and Co. sold Canister Foreign Extract Bark, 2s. 8d. per lb.—38 Chests E. I. Gum Arabic, 66s. to 71s. 6d. per Cwt.—Messrs. Griffin and Son.—14 Chests Red Bark, 3s. 3d. to 3s. 5d. per lb.—11 Chests of Pale Bark, in bond, 1s. 3d. to 5s. per lb.—83 Ferons Yellow Bark, in bond, 2s. 3d. to 3s. per lb.—2 Chests Assafetida, 10s. per Cwt.—2 Chests Gum Ammoniac, 11s. 15s. per Cwt.—1 Cask Gum, 30s. per Cwt.

METEOROLOGICAL TABLE.

From September 26, to October 25, 1813.

D.	Therm.				Barom.	Hygrom.			Winds.	Atmos. Variation.
						Dry.	Damp.			
26	56	62	55	30 ¹	—	8	13	12	E..	C... F... C..
27	55	63	55	30 ¹	30	11	—	—	NE..	F... —... C..
28	56	60	53	30	1	7	15	12	NE.	Fog.. F.. C... —...
29	55	59	54	30 ²	—	12	—	15	NE.	Fog F.. C... R. in N
30	55	59	52	30 ²	1	11	26	19	E..	F... —... —...
1	50	57	53	29 ⁹	8	12	—	15	E..	F... —... C...
2	52	56	54	29 ⁸	7	12	—	—	E..	C... R. C...
3	53	58	55	29 ⁸	9	12	—	7	ESE.	F... C... —... R... in N
4	55	57	63	29 ⁹	7	2	—	—	10 25 SE.	R... —... —... C...
5	61	63	61	29 ⁸	9	—	—	—	25 15 — SW.. W..	F... C.. F..
6	60	64	62	29 ⁹	8	—	—	—	16 12 15 SW.S.	C... —... —... R... in N
7	68	63	58	29 ⁶	7	—	—	—	20 35 30 S.	R... —... —... F.
8	55	59	60	29 ⁸	—	—	—	—	27 32 36 SW...	F... R... —... C...
9	58	60	56	29 ⁵	6	—	2	—	30 — 6 NW..	C... F... —... —...
10	55	59	55	29 ⁵	2	—	—	—	15 2 14 W..	R... F... C. R...
11	52	55	51	29	6	—	—	—	13 — 11 W....	R.. F.. —...
12	48	56	58	29 ⁸	6	—	—	—	15 — 22 W..	F... C... R... —... in N
13	57	54	52	29 ⁴	7	—	—	—	27 — 16 NW..	C... F... —... R... in N
14	43	46	53	29 ⁸	7	—	—	—	21 9 14 NW.	F... —... —... —...
15	43	49	47	29 ⁴	3	—	—	—	19 — 20 SW...	F... R... —... F...
16	44	47	50	29 ³	28 ⁸	—	—	—	20 10 20 SW.. SE..	F. R... —... C...
17	48	53	46	28 ⁸	29 ²	—	—	—	19 — 15 W.. NE..	F.. R... —... F..
18	43	50	43	29 ⁴	6	—	—	—	15 — 11 NW..	F... —... C...
19	39	47	43	29 ⁷	—	—	—	—	16 9 16 NE..	F... —... C...
20	42	48	42	29 ⁷	—	—	—	—	16 10 20 NE..	Fog ... C...
21	50	54	51	29 ⁶	7	—	—	—	21 30 17 E..	R... —... —... —...
22	52	56	55	30	—	—	—	—	12 17 24 SE..	Fog ... C...
23	55	57	54	29 ⁹	30	—	—	—	20 18 20 SE..	Fog ... C.. F...
24	39	48	45	—	—	—	—	—	20 16 15 SE..	Fog ... C...
25	41	54	46	—	—	—	—	—	12 6 10 E.	F.. R. Fog ...

Quantity of rain from the 26th of September to the 25th of October, three inches $\frac{4}{5}$. On the 6th, storm of thunder, with heavy rain in the night. 16th, serene lightning, very frequent in the evening. This interval has been unusually wet for the season of year. The equinoctial gales, which had not appeared at the accustomed time, have blown with considerable violence in October.

Inflammatory affections of the chest, especially in children, have been frequent; and Scarlatina has spread rapidly in some districts.

October 26th.

List of Diseases in October, in the Practice of DR. FOTHERGILL.

RHEUMATISMUS	10	Phthisis Pulmonalis ..	5	Dyspepsia	6
Febris	2	Marasmus	2	Diarrhœa	3
Scarlatina Anginosa ..	3	Hæmoptoe	1	Dysure	2
Scarlatina Maligna ..	2	Hæmatemesis	2	Erythema Nodosum ..	1
Cynanche Tonsillaris ..	2	Asthemia	7	Erysipelas	1
Cynanche Laryngea ..	1	Cephalalgia	3	Lichen Simplex	1
Phrenitis	2	Lumbago	3	Porrigo	2
Peripneumonia	1	Colica	2	Menorrhagia	2
Pertussis	4	Gastrodynia	4	Amenorrhœa	4
Tussis et Dyspnœa ..	12	Vomitus	2	Morbi Infantiles	3
Catarrhus	8				

MONTHLY CATALOGUE OF MEDICAL BOOKS.

THE Edinburgh New Dispensatory, containing the Elements of Materia Medica and Pharmacy, with accurate Translations of the London, Dublin, and Edinburgh Pharmacopœia. By John Thomson, M.D.—Highley and Son.

A Practical Materia Medica, in which the various Articles are fully described and divided into Classes and Orders, according to their effects; their Virtues, Doses, and the Diseases in which they are proper to be exhibited are fully pointed out: interspersed with practical Remarks and some select Formulæ; to which is added, a general Posological Table, intended principally for the use of Students and junior Practitioners. Second Edition. 12mo.—Highley and Son.

The Anatomical Instructor, or an Illustration of the Modern and most approved methods of Preparing and Preserving the different Parts of the Human Body, and of Quadrupeds, by Injection, Corrosion, Maceration, Distension, Articulation, Modelling, &c. with a variety of copper-plates. By Thomas Pole, Member of the Royal College of Surgeons. A new edition, with additional notes. 12mo.—Callow and Underwood.

An Essay on the Philosophy, Study, and Use of Natural History. By Charles Fothergill. 12mo.—White and Co.

The Art of Preserving the Sight unimpaired to an extreme Old Age, and of re-establishing and strengthening it when it is become weak. 12mo.—Colburn.

Some Account of an uncommon Appearance in the Flesh of a Sheep, with Reflections on the Nutrition of Sheep, &c. By W. Vaughan, M.D. 8vo.—Harding.

A brief Description of the Plague, with Observations on its Prevention and Cure. By R. Pearson, M.D. 8vo.—Underwood.

Floria Glottiana: being a Catalogue of the Indigenous Plants on the banks of the River Clyde, and in the Neighbourhood of the City of Glasgow. By Thomas Hopkirk, Fellow of the Linnæan Society, &c.

A General Account of the Hunterian Museum, Glasgow: including Historical and Scientific Notices of the various objects of Art, Literature, Natural History, Anatomical Preparations, Antiquities, &c. in that celebrated Collection. By Captain J. Laskey. 8vo.—Longman and Co.

NOTICES TO CORRESPONDENTS.

Communications from the following gentlemen will appear in our next Number:—Dr. Uwins; Messrs. D. H. Davies, R. Wright, Charles Mayo, W. Jones; C. W. S.; an Apothecary, &c. Dr. Jeffrey's letter will be attended to.

All Communications are requested to be addressed to the care of the Publisher, No. 1, Paternoster Row.

On

ON THE COMPLETION OF SETS.

THE Series of the Medical and Physical Journal have for several years past been acknowledged to constitute the most valuable periodical collection of important facts and discoveries in Medical Practice, which exist in any language. It is now Seventeen Years since the work first claimed the notice of the Public, and during this period of unparalleled activity in Scientific and Medical Research, it has been the depository of the communications of the Faculty in every part of the world; while its editors have never failed to glean, from every authentic source, whatever appeared to them to be worthy of the attention of their readers. Hence it is to assume nothing beyond the strict fact to state, that the London Medical Journal now is, and long has been, THE UNIVERSAL GAZETTE OF THE FACULTY, circulating wherever the English Language is read, and that circulation reflecting, as its natural effect, a universality of respectable correspondence unequalled in the experience of Periodical Literature.

Under these circumstances, the THIRTY VOLUMES, of which the entire Series now consist, have acquired a value and importance which the Public, and even the sanguine wishes of the Proprietors, could never have anticipated. At the same time the increasing length and corresponding value of this series have been attended by a corresponding inconvenience to the friends of the work; and many Gentlemen express their regret at the loss and imperfection of Numbers and Volumes, by which their Sets are broken, while they complain of the great expence attending the purchase of the Numbers in which they are deficient, at the full, but necessary price of HALF-A-CROWN. On their parts the Proprietors are anxious to make such present sacrifices as may gratify their friends, and perhaps ultimately accord with the interests of the work; they have therefore resolved, during a period of THREE MONTHS, i. e. from the 1st of November to the 1st of February next, to vend all the Numbers published prior to the present year at EIGHTEEN-PENCE PER NUMBER, or Half-a-Guinea per Volume half-bound.

This temporary concession on their parts will, they trust, prove agreeable to many of the earliest and best friends of the work, who are also the most anxious to perfect their Series, and serve as an accommodation to the funds of Medical Reading Societies, now established in many districts, part of whose Library-Stock consists in general of parts of the Series of this work.

As the perfecting of Sets will naturally lead to a desire to possess a GENERAL INDEX TO THE WHOLE, this seems to be a suitable occasion on which to re-announce that a General Index will be put to press as soon as Five Hundred Names are received at the Office of the Publisher, implying a disposition to pay ONE GUINEA for the same on its delivery.

THE
Medical and Physical Journal.

6 OF VOL. XXX.] DECEMBER, 1813. [NO. 178.

"For many fortunate discoveries in medicine, and for the detection of numerous errors, the world is indebted to the rapid circulation of Monthly Journals; and there never existed any work to which the faculty in EUROPE and AMERICA were under deeper obligations than to the Medical and Physical Journal of London, now forming a long, but an invaluable series."—RUSH.

To the Editor of the Medical and Physical Journal.

SIR,

ON the 31st of last March, I was called to Quainton, a village about seven miles from this place, to attend Mr. King, a farmer, who was thought by the medical gentlemen already in attendance to be in a state of rapidly approaching dissolution. Mr. K. is a corpulent man, and has had for many years an umbilical rupture of such an extent as to include a very large portion of the intestinal canal. The first symptoms of his present complaint were a pain in the abdomen at some small distance from the orifice of protrusion, and sickness with obstinate costiveness: these symptoms had been present for some days before medical assistance was procured, and in the mean time purgatives of a common nature had been administered both by the mouth and the anus, without the effect of producing evacuation.

Before the medical gentleman who preceded me saw the patient, the pain which had been felt was in a very considerable degree mitigated, without the smallest abatement of the other symptoms; and the appearances at the time he was called in were such as to lead to the supposition of inflammation and strangulation having existed in some portion of the intestines, which were now followed by mortification. This opinion I also found every reason to adopt, and agreed with Mr. Hayward in the propriety of stating to the friends that the patient would probably not survive twenty-four hours. There was great prostration of the vital powers, pulse sinking and intermittent, incessant hiccup, and total freedom from pain.

The vomiting, it ought to have been stated, had every appearance of being *fecal*. Under these circumstances, I recommended a more vigorous pursuit of the plan which had been already commenced—that of leaving the chance of

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cure

cure entirely to the administration of opium. In addition to a grain of opium which had been ordered in the form of pill to be pretty frequently given, I directed two drachms of the tincture, with a pint of linseed decoction, to be injected in the way of enema every second or third hour. We left the patient in the evening, and by the report of next day I was delighted to learn that in a very short time after the injection of the opiate clyster, an evacuation of faces took place, which promised and proved to be a signal of recovery. He from this time began to amend, and in a short period, without any further assistance from medicine, was left with no complaint but weakness.

Beside the satisfaction I felt in the recovery of my patient, I was pleased in the triumph of a principle which I am disposed to think is not in general sufficiently appreciated or acted upon, namely, the advantages promised by large and liberal doses of opium in circumstances of constipation of the bowel from spasmodic constriction. I care not by what name we designate this useful drug, antispasmodic, stimulant, or sedative; but I am anxious to impress on others my conviction that, notwithstanding its astringent qualities, there are cases (and the above is one of them) in which it is likely to prove almost the only *purgative* to be found in the materia medica, and that by a bold dash at the cause of the evil, disregarding minutiae, we may frequently preserve and almost restore life.*

But to proceed with the account of my patient. On the 21st of last month I was again summoned to see him, and again found him much in the same state as above described. He had been without any evacuation downward exactly a week previously to my seeing him this last time, and during that period nine clysters had been administered, five common purgative ones, and four of the linseed decoction, with the same quantity of opium as before. The constipation now resisted even the large doses of laudanum, and I again almost abandoned every hope of his recovery. I, however, ordered one drachm of tobacco to be infused in a pint of water, and the infusion, with another two drachms of tincture of opium, to be injected as soon as possible. This last enema produced all the common effects of the tobacco thus

* I this day happened to open upon the chapter "*de Ileo*" in Dr. Heberden's commentaries, and found with much pleasure the following expressions respecting opium in this disease. After stating the several commendatory qualities of the medicine in question, the author goes on to say, "*Ea sententia multo potior mihi visa est quæ opium contra ileum prodesse statuit, quam quæ nocere.*"

given,

given, without overcoming the stricture. I ought to have stated that in this last attack the evacuations by the mouth had still more decidedly the odor and color of fluid fæces, and that all the injections were retained. About the third or fourth day from the attack, something was discharged by the anus which the attendants confidently stated to be a worm, but which, when I saw it, had more the appearance of a portion of membranous substance, broken down and almost dissolved: it came away unaccompanied by fæces, and the constipation was not affected by its discharge.

Finding the effects of the tobacco clyster to be as above stated, I judged it prudent to discontinue its use, and ordered the following medicines to be continued:

R. Mist. Assafœtid.

Aquæ font. āā. ℥iv.

Tinct. Opii, ℥ij.

f. Enema Secundâ quâque horâ injiciend.

Sumat statim Hydrargyri, ℥iv.

Mitte Ol. Ricini, ℥ij. quo infricetur abdomen sæpe.

Four of the above injections were administered, and the quicksilver given the same night, after which the patient lay in a state almost of insensibility for about twenty-four hours, and the attendants were about to give him eight ounces more of quicksilver which I had ordered to be in readiness, when he unexpectedly expressed an inclination to stool, had a copious evacuation, and from that moment again gradually recovered. I did not see him again till yesterday, when I found him walking about his farm-yard. His bowels are now regular, but he is still very weak, and his legs have become œdematously swollen.

In reflecting upon the peculiarities of the above case, the following questions suggest themselves. What was the state of the intestines upon which depended the constipation? Was it an inverted action of the whole course of the canal; was it constriction from inflammation; or was it a case of *intus-ceptio*? And in regard to the remedies, we are led to inquire what share the opium had in the cure, and how much might be attributed to the operation of the crude mercury?

The pain which was felt in the first instance would lead to the supposition of local inflammatory action, while the retention of the clysters, and the fæcal vomiting, favor the conclusion of inverted action, which, by the way, when we reflect on the structure of the intestines, and especially the value of the colon, is not very conceivable. In regard to the share which the respective medicines had in the cure, I must repeat my conviction of the great benefit derived from

the opium, which, although less unequivocally and immediately operative in the second than in the first attack, still, in this last, I think, to say the least of it, preserved life, while the quicksilver or *vires naturæ* effected the restoration of due action in the bowels. It becomes a question how far the mercury operated at all, as there was no evacuation until the Thursday afternoon after it had been given on the Tuesday night.*

But I must conclude,—my intention was to publish facts, and not to propose theories; and I will no longer draw upon the pages of the Journal, or patience of its readers.

Aylesbury, Bucks,
Sept. 15, 1813.

DAVID UWINS, M.D.

To the Editor of the Medical and Physical Journal.

SIR,

SEEING a case of "Rupture of the Uterus during Labour" in your Journal for this month, by Dr. Ramsbotham, I was reminded of one which occurred to me not long since. I have the honor to be

Winchester,
Oct. 14th, 1813.

Your obedient Servant,
CHARLES MAYO.

Thursday, 17th of June last, I was called to Rachel Marsh, at five in the morning, and found that her water had broke, about an hour before, which waked her from a sound sleep. This, however, was succeeded by no pain, and therefore, after remaining with her a short time, I left her, desiring to be sent for when her pains commenced. I saw her again in the course of the day, but found that no pain of consequence had occurred, the water still continuing to come away. On Saturday I called again; she continued much the same, had had occasional pains, but passed her nights pretty quietly. On Monday morning I again saw her: the pains had been more frequent and severe, much water had drained from her, and early this morning a quantity of very foetid and discolored discharge had come away. She felt great pain in the left inguinal region, and had experienced more or less in that situation throughout her pregnancy. In the evening, about nine, I was sent for in great haste, with intelligence that her labour-pains had now come on with great severity, and that the nurse expected

* The attendants neglected to examine the *faeces* first discharged from the taking of the quicksilver.

the birth of the child very speedily. On my arrival, she was walking about, and several sharp pains came on soon after. I found the os uteri dilated to about the size of a crown piece, and very little below the brim of the pelvis, the head presenting. She was extremely restless, and would neither lay, stand, or sit, for a moment. After I had been with her a quarter of an hour, a sort of convulsive fit succeeded one of her pains; and I understood she had been subject to fits in her former labours. She was very short, and extremely corpulent, which, added to her pregnancy, rendered her very unwieldy, and, from her great restlessness, almost unmanageable. She continually exclaimed she should die, and begged that more assistance might be sent for. She had been attended by two other gentlemen in her former labours, and I requested that one of these might be fetched. In the mean time, as she sat, a pain came on, which was succeeded by a considerable rigor, and she became faint. Presently, on her rising from the seat, I perceived on the floor a quantity of blood. I immediately got her on the bed to examine: I found the os uteri much more dilated, but the head had made but little progress in its descent, and there was no hæmorrhage perceptible. As she laid down, she repeatedly said, I am going, and prayed for her children, as if she was sensible of her approaching end, which, from the frequency of these exclamations in the time of labour, no one had as yet regarded in a serious light; but now indeed both myself and her attendants began to be alarmed, when her extremities became cold, and she uttered a deep groan, and scarce five minutes had elapsed since she laid down, before she expired. The gentleman who had been sent for arrived soon after: he suggested a variety of accidents which might have been the causes of this event, and which we determined, if possible, to ascertain by dissection the succeeding day.

On dividing the parietes of the abdomen, a quantity of fluid tinged with blood escaped. The uterus occupied its natural situation, and at first sight appeared sound, but on raising the fundus, a large black echymosed patch was observed on the left and posterior part of the neck; here a limb of the child was felt to protrude, covered only by what appeared to be the peritoneal coat of the uterus, but so loaded with blood as not to enable us distinctly to ascertain. Without disturbing this, I laid open the anterior part of the uterus; the head of the child plugged up the superior aperture of the pelvis, and was descending in the natural way, and this we did not withdraw, in order to prevent the escape of the fluids with which we were now encumbered. We discovered

discovered a distinct laceration in the inside of the uterus, at the place before mentioned, and the elbow and shoulder of the child were entangled in the opening. The supposed membranous covering easily gave way, and the naked arm was readily drawn through the fissure. With regard to the nature of this aperture, whether it was the effect of a momentary cause, or whether the result of long preceding disease, the opinions of several surgeons present differed. The edge of the opening, which was a sort of longitudinal slit about four or five inches in extent, appeared smooth and defined on one side; but being called away suddenly, neither time nor convenience would suffer me to make a more accurate investigation. No one doubted that this must have been the cause of her death. There had been no hæmorrhage of importance, but we were inclined to think the structure of the uterus somewhat depraved.

She had been the mother of ten children, which she had borne very quickly. I learnt from the gentlemen who had formerly attended her, and who were present at the examination, that she was always of that restless disposition during her labours. The early rupture of the membranes was probably in this case very prejudicial; and it has occurred to me to observe in several cases which have been related, that the subjects of them have been very corpulent, and have borne many children. From these causes, I conceive the muscular structure of the parietes of the abdomen frequently becomes very much debilitated, so as to diminish, and almost abolish its contractile power, and consequently deprive the uterus of a very powerful assistant during labour. The linea alba in this case was very wide, and the recti muscles pale and thin, spreading on each side to a great extent.

To the Editor of the Medical and Physical Journal.

SIR,

THE insertion of the following observations connected with the relation of a case in your valuable miscellany, will oblige the author.

In some former Numbers of your Journal, I have more than once attempted to point out, by the result of fortunate cases and analogous reasoning, the practicability of curing diseases, particularly those of an inflammatory kind, by inducing a new action into the system, and thus superseding the morbid one previously existing. I am well aware that the exhibition of mercury in these diseases is not a novel mode

mode of treatment, nor the principle I have just noticed unknown; for the axiom on which the rationality, and, as far as my limited experience extends, the practicability of this plan of treatment rests, was laid down many years ago by the celebrated Mr. John Hunter, whose idea was that it was incompatible with the laws of the animal economy to support two actions in one system at one and the same time; but though I disclaim any merit as to the discovery of this great pathological axiom, I have endeavored, with some perseverance, for several years past, to build a practice on the knowledge of it, the striking advantages attending which have been most conspicuously apparent in a number of instances, some cases of which I have related in this Journal; and in other cases of equal success, I have solicited the attention of my professional friends to witness the success resulting from this mode of treatment. Mercury is frequently administered by medical men, yet the principle on which I conceive it to act is not generally admitted. That principle may be erroneous, but I much wish to excite professional men to a candid inquiry of the subject, as I do entertain an opinion that it has preponderancy of evidence on its side. This induces me to offer some further observations on the subject, as I conceive it is upon a knowledge of this principle alone that an extended and general adoption of this practice will ensue.

It is my idea that the benefits resulting from the exhibition of mercury into the system in cases of deranged morbid action, particularly of an inflammatory kind, are solely attributable to the production of a new action; and that a decided and perfect remission of symptoms never takes place till the action is perfectly established; and that the system, unable to attend to the diversified operations of two actions existing at one time, the morbid one is forsaken in order to attend to the formation of secretions which the new action requires, in order to maintain its existence in the system. Under this impression of the principle on which this remedy acts, it is conclusive that the mineral ought never to be discontinued till it is evident that a new action is perfectly formed, which is evinced by a ptyalism being produced; proving that the powers of nature are all put under requisition to support and maintain for a certain period the continuance of a new and inordinate action.

In cases then of a morbid inflammatory action, such as hepatitis, enteritis, gastritis, inflammatory rheumatism, incipient stage of phthisis pulmonalis, and diseases of a similar nature, the practice of administering mercury, and stopping any thing short of this effect being produced, is *inert and*

useless; because, not being carried to that extent as to call forth a new action, the powers of the constitution are not diverted from the maintenance of the diseased action now existing, and thus the morbid derangement continues.

What has led me to entertain the idea that the exhibition of mercury in diseases is inefficient, and, to say the least, extremely uncertain, till a new action is established, is, that I have invariably found, whilst administering this medicine, that patients have perceived no visible relief or amendment of symptoms till the ptyalism commenced; and that in the instance I shall relate, every symptom remained in its aggravated form till within a few hours of this effect being produced, and that, when it was established, the patient literally complained of little else but the unpleasant soreness of his mouth, and the inconvenience attending an increased secretion of saliva; and in other instances, as well as this, I have never found any visible remission of symptoms to any extent, till the new action was established.

I am not disposed to be a bigot to any opinion, but surely this is very conclusive of the truth of the position I have endeavored to establish, that the cure is dependant on one action superseding another. This consideration of the subject naturally leads me to another point of inquiry, whether or not there is any thing specific in the nature of mercury, or that it ever acts as a specific in any one disease whatever? A great deal has been said about its assimilation with diseases, and of the kind of affinity subsisting between the disease and the mineral; but I must confess, as far as my observations have led me to judge, I feel convinced in my own mind that were I able to produce the same strength of action by any other vegetable or mineral, the same success would attend its use; and I am equally inclined to think that even in lues venerea, mercury is *no specific*. It never is of any benefit without a ptyalism being produced, and it is universally admitted that without this test no reliance is to be placed on its administration in this disease: then why may we not infer that it cures the disease by diverting the powers of the system from carrying on a continuance of the diseased action, and by establishing a fresh one? But it may be said that this reasoning is just, and the circumstances quoted may bear it out, if the first position is accurate and certain in its nature, viz. that it is inconsistent and impossible for nature properly to support two actions at one and the same time. Now, in solution of this question, analogy only can be resorted to. It first must be recollected that this is a question that has not been much canvassed or discussed, that the truth of the axiom has never been seriously inquired into, and

and consequently the practice that may be reasonably built on it never fairly and impartially tried. It must particularly be remembered, in reflecting on this subject, that I do not intend to insinuate that *any* new action introduced into the system will supersede and destroy inflammatory action,—by no means, if that action is not stronger in its nature, or, more correctly speaking, capable of exciting stronger commotion or more violent excitement in the system than the disease, it falls short of the desired effect. I entertain at the same time no doubt but that a comparatively mild action, *newly* introduced into the system, may mitigate or retard diseased action, but not being able to divert the powers of nature entirely and completely from the maintenance of the morbid action, it still in some degree continues: for instance, how frequently do we see incipient symptoms, nay even aggravated symptoms of phthisis pulmonalis, suspended, as soon as the action of utero gestation has commenced in the female; but the action not being sufficiently violent to divert entirely the powers of the constitution from the disease, as soon as the suspensory powers of this action are removed by the process of utero gestation being completed, the disease resumes its accustomed powers over the system, and its ravages terminate in dissolution. Again, it is far from usual that the action of gestation ever commences while the process of suckling is going on. What can this be attributed to but the incapability of the system in supporting two distinct actions at the same time? Again, to what source are we to attribute medical men never being witnesses to two distinct unconnected diseases existing in one system at the same time, if the position I have endeavored to establish is incorrect? Why should we not hear, amongst the innumerable relation of cases on record, of instances where, for instance, scarlet fever and small-pox have existed in full force, at one and the same time, or any other two distinct diseases? I am ready to admit that, on the decline of a disease, when the stimulus of the action is comparatively worn out, a fresh disease may make its appearance; but that two diseases shall exist in full force at the same time I conceive is *impossible*, and inconsistent with the regulated laws of the animal economy; and, therefore, that in cases of morbid inflammatory action, if we are able to induce a more powerful action than the disease, (and that I think is practicable by the aid of mercury, if properly and efficaciously administered,) we shall not only suspend but destroy the disease at the time existing.

Again, analogy will not only bear this position out with respect to the accustomed and ordinary operations of nature,

but also in reference to those astonishing cures that have occasionally been performed by the agency of empirical practice; and, without enlarging into a history of such cases, I shall only take notice of some cases of gout, which, if I am allowed the expression, have been dangerously cured by the administration of the *Eau Medicinale*, a medicine universally allowed to be composed of the most drastic and powerful ingredients. The usual result from the exhibition of this medicine in most cases has been most powerful and excessive sickness and purging. Now in my idea, though I am no advocate for such uncertain powerful medicines, yet I firmly believe that the good effects that have occasionally resulted from its use have been solely attributable to its agency in producing a new and violent action in the system, and diverting the powers of nature from the seat of the disease.

From the preceding observations, I should be sorry to be misconceived, and to be thought bigotted to this mode of practice only in the treatment of that class of diseases I have hinted at, to the exclusion of all other remedies. Such a conclusion, from what I have stated in these pages, would be totally irrelevant from my ideas on the subject.

In those cases where inflammatory action runs high, I advocate in the strongest manner the use of the lancet; and I likewise wish to mention that I conceive it a most powerful auxiliary, in the treatment of those diseases, to the mode of practice I have recommended, viz. the exhibition of mercury to the extent of ptyalism; and that I conceive the evacuation of blood disposes to a state of system peculiarly favorable to the impression of mercurial action; that even in delicate and spare constitutions it ought always to precede the exhibition of this mineral, as a much less quantity of it, under those circumstances, will affect the system so as to produce the action required. But still the great object accomplished by the exhibition of mercury in these diseases, is the possessing the power of vanquishing and subduing the disease in a shorter time, and lessening the period of human suffering; and this surely is an object worth attainment.

Having made these observations, I shall subjoin concisely the history of a case that will in some measure tend still more to elucidate the subject,

Mr. K., aged 28, of Foley-place, about two months since, applied to me for relief. When I first was requested to visit him, he had been for several days laboring under acute symptoms of pneumonia; and at this time the inflammatory state of the disease was unabated. He had applied to a medical gentleman, but had experienced no relief from what medicines had been administered. He complained of
dreadful

dreadful anxiety about the chest, excessive shortness of breath, the pulse was rapid and full, skin hot, tongue furred, high-colored urine, incessant cough, and little expectoration. Under these circumstances I thought it necessary to take away some blood, which was accordingly done to the extent of about twenty ounces; a blister was applied to the chest; and he took six grains of the Pil. Hydrarg. (with the addition of a little Extr. Papav. to prevent its purging) every four hours, with a dose of a saline fever mixture. Symptoms remaining in the same aggravated form the next day, I bled him again nearly to the same amount, and likewise the day succeeding, at the same time continuing the exhibition of Pil. Hydrarg. but gradually increasing the dose. This plan of treatment evidently prevented the active state of the disease increasing, but no material relief or mitigation of symptoms took place till the seventh day from the taking of the mercury. It is necessary here to observe that the bleeding evidently was instrumental in removing the active stage of the complaint, but the diagnostic symptoms of the disease still remained in full force, such as the laborious breathing and distressing harassing cough, &c. &c.; and, in addition, the incipient symptoms of phthisis pulmonalis made their appearance during the last five days—the face was flushed; the palms of the hands were affected with burning heat; the fever assumed within the last day more of the hectic form, having exacerbations in the day; the countenance assumed the hypocratic form; and the patient experienced profuse morning perspirations. On the evening of the sixth day from the commencement of the mercury, he remained in this state, with very little amendment apparently in his favor; but on seeing him next day (the seventh), the breathing was become almost natural, the cough had nearly subsided, the perspirations were not in any degree so copious, he had experienced no return of the flushes; in short, every unpleasant symptom had left him: almost the whole of his complaint *now* was the painful inconvenience resulting from the mercury having affected his mouth *pretty severely*. From this moment convalescence succeeded, and a rapid amendment was apparent; and he is now grown quite robust and hearty, and is enjoying the most perfect health.

Without again enlarging into observations, I shall leave the subject for the consideration of your intelligent readers.

D. H. DAVIES.

27, Carburton-street,
Fitzroy-square.

To the Editor of the Medical and Physical Journal.

SIR,

AFTER the energetic language of a Parkinson, and the laudable exertions of a committee, I conceive that those who do not coincide with its views are called upon to give their opinion of the matter in exoneration of themselves, as the withholding the aid called for, and maintaining a total silence, makes a man look very contemptible in the scale of society; and it is this idea that furnishes me with an apology for obtruding myself on the public.

So long as the legislature remains indifferent to the present disgraceful state of medical practice, the exertions of individuals, however laudable, will, I fear, be of little avail; because, unless the state be thoroughly alive to her interests, and active in watching and guarding her own safety, she will never enact laws so seemingly remotely affecting her as to put subjects in a better train for seeking the advice they need. If the learned men of this nation have no idea of promoting the public weal beyond that of their having given support or assent to any discovery that individuals may have promulgated, and awarding according to its merit, they go no further in their line of duty than some of our religionists, who distress the poor on a week-day for a paltry sum, that they may have the better means of giving something at a charity sermon, or enjoy the vanity of seeing their names and donations on the records of a newspaper.

Whenever popular obloquy is aimed at any class of the community by the vulgar, its frequent repetition often causes the higher classes of society to use it with such seriousness, as affixes to it that stamp of veracity which, when traced to its genuine source, too often proves it to be of unshaken stability. Adduce only e. g. the very frequent opprobrium that is levelled at that heterogeneous class of men called "doctors"—"Ah! you give two bottles of stuff to make your patients well, and one to make them *bad* again." Few expressions can surpass the illiberality conveyed by this, though many such are broached by the vulgar, and imbibed and credited by their superiors, till, from a jocular expression, a popular opinion is created, and this, frequent usage renders proverbial, which it never attains unless there be some truth in the remark. Thus then we see that the shafts of wit and the mockery of fools, directed against a divine, a god-like art, are the sad tokens by which is conveyed the deceit and hypocrisy they imagine its professors to be capable of, instead of the veneration and respect in which they ought to be held.

Why

Why is all this? Because no branch of the profession is restrained from infringing on the rights of the other. Hence we see why it is the shopkeeper sells salts, senna, manna, magnesia, rhubarb, and other articles; we see the disregard paid as to whether he sell common salts or saltpetre, till the fatality attending his ignorance is woefully brought home to him: we see the perfumer and the patent medicine vendor (shame to the nation that encourages it!) have their share of a business they must be totally ignorant of; and whether they sell the most actively deleterious substances, under the specious titles quack medicines assume, or a walking cane or pomade divine, they are regardless of every thing but the profit awaiting them; just like the blind organ player, who rattles out a tune careless about its dissonance, so long as it procures him a few pence. This is not wrong of the persons who keep these shops—self-interest is implanted in us by Nature: still, if the evil be not attacked at its very root (and this I consider to be so), and if medical men will not in one body convene, and address the state to alter the present system, and to prescribe the limits each branch should enjoy, wrangling, cross-purposes, and petty meannesses will still pervade the body it infests, and no solid advantages will be derived while each is alike eager for aggrandizement. As it now stands, the shopkeeper, the perfumer, and the patent medicine vendor usurp the province the chemist and druggist ought in a great measure to exercise; the druggists step into the department of the surgeon-apothecary, who, unable to remedy this from any appeal to his College, whose duty it is to protect him, oversteps the sphere of his action into that of the physician,—who, being alike unable from any appeal to his College to obtain redress, by reason of its not being able or willing, or being shamefully negligent, he is compelled to fight his own battles in his own way, and as is his disposition so is the nature of his quarrels, either sly, aggravating, or malignant. Others are doubtless equally in fault, but I only speak of the latter because that is the ultimatum from whence repulsion (if I may be allowed to call it so) takes place,

Thus then (and sad is the observation in a country like this) we see that those who should most strive to cement an union are most at variance, whilst the neutrality of the quack shelters him; and the opprobrium which should be cast at him flies off obliquely to the medical practitioner, who, belonging to a body, exerts no influence, or they might pronounce "*Cuique sua dos est*," by allotting to nine-tenths of them a halter, and to the rest, by strenuously endeavoring to procure for them from government a pension propor-

tionate to their discovery, and its influence on the public weal. That man whose patient investigation and deep research discovers any thing whereby the miseries "that flesh is heir to" can be eradicated, is as much a hero as he whose consummate skill destroys fleets, besieges towns, or drives the enemy back to his own territory; but the man that will not promulgate this for the benefit of the public at large, when a suitable remuneration is offered for the discovery, deserves as much the detestation of his species as a murderer would call for from a hero.

It is quackery, hydra-headed quackery, that must most strenuously be attacked. To the honor of the nobility of this nation, I cannot but believe that were a subscription opened for the accumulation of vast sums to compensate for the disclosure of the most noted of these compositions to a select body of competent judges, we should see miseries relieved that before were incurable, contention would be quelled, and happiness restored. When I see or hear of any eminent man candidly giving sanction to a useful preparation, I can draw no other conclusion than the above, and can have no wish more ardent for my fellow creatures than that of seeing it accomplished. We are told that Daffy's Elixir is Tr. Sennæ comp. in. Sp. Vin. Gallici, with Spanish liquorice; Solomon's Balm of Gilead—Tr. Cantharides, with Bals. Copaivæ; Scott's Pills—Alöes and Ol. Anisi; Eau Medicinale—white helebore wine:—then surely it must be a desideratum that medical men should have, and only have, these substances to use according to the circumstances of the case.

But I will not occupy too much space in your useful miscellany. I wish to induce some gentleman more competent than myself, to discuss the following question, viz. Can any solid benefit be obtained whilst quackery is daily increasing?—a fact, I believe, pretty generally allowed, and, of which, being so well convinced, I cannot but say that were a society established for the extermination of this murdering practice, I would willingly give as many pounds as I should reluctantly give farthings to the other, where, in their proposed amendment, the consideration of quackery is totally omitted.

Receive, sir, or reject these remarks, according to your idea of their utility. I should like to sign "Medio;" but if you wish my name, I have no reason to conceal it, remaining, sir, your constant reader,

ROBERT WRIGHT,

Memb. Roy. Coll. Surg. London.

*Whitechapel Road,
Oct. 13, 1813,*

To

To the Editor of the Medical and Physical Journal.

SIR,

ALTHOUGH there may be nothing novel in the symptoms or treatment of the following case of **true* Puerperal Convulsions; yet, as it belongs to a formidable class of diseases whose termination is too generally fatal in proportion with their occurrence (which, however, is providentially not frequent); and as this case terminated favorably, though attended from the onset with most alarming symptoms; it will, I trust, be readily recorded in your respectable Journal, as it may tend, perhaps, to encourage *perseverance*, and perpetuate the motto of *Nil desperandum*.

I am, Sir,

Marlborough,
October 18, 1813.

Yours respectfully,
WILLIAM JONES.

On the 23d of September last, about ten A. M. I was desired to visit A. B., an athletic woman, æt. 24, the wife of a laboring man, who, I was informed, had that morning, soon after rising, been attacked with convulsion fits, though not before subject to them. I found her sitting in a chair in a state of stupor, from which having roused her by the use of volatile stimuli, &c. I put several questions, which she answered rationally but rather incoherently; and complained of pain only in the head, with giddiness and indistinct vision; nausea, with inclination to vomit; and the pupil of the eye was also somewhat dilated. Not having been previously apprised of her being pregnant, I inquired, on observing the *abdomen rotundum*, how far she was advanced in her gestation, and learnt it was nearly or quite completed, with her first child.

There was at this time no apparent symptom of the commencement of labour, except a slight rigor, which, though a frequent attendant on the first dilatation of the os uteri, might possibly in this case have been attributed to the convulsions. The pulse was rather languid and slow. Being suspicious, however, that these unpleasant symptoms were the *precursors* of labour, I abstracted about twenty ounces of blood from the arm, and desired she might be kept quiet and recumbent, at the same time intimating to her attend-

* The reporter is induced to make this distinction in consequence of observing, in No. 173 of Med. and Phys. Journal, p. 36, a case of Convulsions during Labour, which, however, he trusts no reflecting or discerning practitioner would consider as a case of *true* puerperal convulsions.

ants

ants that labour would probably come on ere long; and desired to be sent for immediately on the accession of pains, or other signs of labour. About eight P. M. one of the attendants informed me she considered her to be in labor, though the patient appeared quite insensible of any such event; and on examination (*per vaginam*) I found the os uteri pretty fully dilated, and the head of the child, with the membranes entire, about to pass into the pelvis. She was laboring under a violent convulsive struggle, the uterus also apparently acting strong. I waited the continuance of two or three pains, and observed the convulsions (which were now so strong that she was with difficulty kept on the bed by the aid of four women) to be immediately excited by, or at least simultaneous with, each expulsive effort of the uterus.

Aware of the attendant danger and too often fatal termination of similar cases, I called in a more experienced practitioner (Mr. W. of this place), when it was agreed to proceed to immediate delivery; and, although there are different opinions on the propriety of proceeding to deliver in such cases, I trust it will not be questioned in this instance, as the child's head had descended favorable for the application of the forceps, and a full-grown living male child was readily extracted in about twenty minutes. The convulsions now temporarily subsided, and she lay in a state of coma, with stertorous respiration, until the action of the uterus recommenced for the expulsion of the placenta, which was effected within a quarter of an hour from the birth of the child, when, during the action of the uterus for its detachment, the convulsions were again excited; after which she relapsed into the comatose state, and appeared totally insensible of the delivery of the child or placenta.

A draught with sixty drops of T. Opii was directed to be taken immediately; and afterwards, when a favorable opportunity offered, two or three table-spoonfuls of a mixture with Sp. Ammon. c. Æth. Vit. c. Lav. c. et Mist. Camph. but owing to a difficulty of swallowing the draught was wasted, and only two table-spoonfuls of the mixture were taken during the night, which was passed restlessly, and accompanied with several convulsion fits.

On the morning of the 24th I found her in a strong convulsion; her lips black; respiration short, difficult, and occasionally suspended; pupil of the eye insensible to the light of a candle; pulse small and irregular, but after the subsidence of the fit full and quick. Venesection was proposed, but her relatives objected to it, as they considered her in a dying state. Sinapisms were applied to the feet, and an
 enema

Enema ordered to be administered. On visiting her again at noon, and finding the pulse still full and quick, I insisted on the necessity of abstracting more blood, which I now did from the arm to about twenty-four ounces, which was buffy. A blister was applied to each leg. From this time till eight in the evening she had only one strong convulsive fit. Two unsuccessful attempts having been made to throw up the injection, it was ordered to be repeated, with the addition of Sulphas Magnesiz \mathfrak{z} ij. A diaphoretic draught was given, which produced some determination to the skin.

The night was passed quiet without any strong convulsion, and on the morning of the 25th there appeared a ray of returning sensibility, as she now opened her eyes on being called by her name, and made an effort to open the mouth on some gruel being offered. The pulse was softer, but quick. The enema had not succeeded, and two or three table-spoonfuls of an aperient mixture were directed to be given whenever a favorable occasion presented, and a large blister was applied *inter scapulas*.

The night was passed quiet, and she was better on the morning of the 26th; but as little of the mixture had been taken, it was ordered to be continued, and the enema repeated, which soon after produced a copious alvine evacuation, and discharge of urine, to both of which functions she was now sensible, though her urine had hitherto passed involuntarily. The skin was somewhat moist; pulse soft, and not so quick. She had now *risus sardonicus*, laughing immoderately at any one who approached the bed, though still unable to speak.

The night was passed quiet, but sleepless; and she appeared still better on the morning of the 27th. The countenance was more natural, and she spoke for the first time since the commencement of her labour, but of which, with concomitant circumstances, she has of course no recollection, though she now answers any interrogatories (unconnected therewith) rationally and promptly, but with an unusual quickness. The secretion of milk being considerable, the breasts were drawn, as she would not acknowledge the child, or suffer it to remain sufficiently long at the breast to be useful.

The night was passed quiet, though sleepless; and she appeared much amended on the morning of the 28th. The pulse was regular and soft; had a natural evacuation from the bowels; the skin continued moist; and she now admitted the child to suck with seeming parental solicitude. Thirty drops of Tinct. Opii were given at bed-time, which procured

four hours sleep towards the morning of the 29th, by which she was much refreshed. She now took sufficient liquid nutriment, and having had no convulsion since the 24th, was considered convalescent; and on seeing her upon the 3d of the present month, I found her quite recovered.

For the Medical and Physical Journal.

ESSAY ON GUN-SHOT WOUNDS, by M. RICHERAND; with additional OBSERVATIONS by the TRANSLATOR.

(Continued from p. 383.)

DILATATION is not useful in wounds of parts not very fleshy, such as the cranium, the lower part of the leg, the foot, the wrist, and the hand. The great number of nerves and tendons in the parts last mentioned, renders every incision dangerous. We have no reason to apprehend excessive swelling in these parts, except, perhaps, in the palm of the hand, where the muscles are pretty numerous, and of some thickness. The extraction of foreign bodies is easy in the parts just mentioned. A soldier of the Parisian guard received a ball in the back of the hand; it was fixed in the space between the third and fourth metacarpal bones; being seized with a pair of dissecting forceps, it was easily extracted. The wound was not enlarged, but simply covered with a pledget of cerate; it got well without difficulty. We may therefore consider dilatation as useless in slightly fleshy parts, where the swelling is of course very circumscribed; it is dangerous, whatever may be the part wounded, when there is torpor; the solids, whose vital properties are enfeebled, would fall into a total relaxation, and gangrene would be the inevitable consequence.

Dilatation is *positively* indicated, it is indispensable only in cases where the limb has been traversed by a ball, in the most fleshy part, in a place where the muscles are covered by an aponeurosis, more or less thick. Suppose for a moment that the thigh has been pierced in its most fleshy part, without injury to the femoral artery or bone. The inflammatory swelling which must inevitably supervene, will at least double the bulk of the muscular mass, and the aponeurotic covering will resist the swelling; the pain which will result from the swelling, together with the humoral infiltration, will infallibly bring on gangrene. Dilatation is indicated to prevent a dangerous strangulation; we should enlarge the orifices of the wound, not for the purpose of changing its round form, which the old surgeons thought extremely pernicious, but to relax the aponeurosis *fascia lata*.

To perform this dilatation, we employ a probe-pointed bistoury;

Bistory; the fore finger is to serve for its conductor. The aponeurosis itself must be slit for some inches in extent; and in order that the muscles should not form a muscular hernia through this simple longitudinal incision, we cut the fascia across, or even in various directions, if it is judged expedient.* We must unbridle the whole extent of the wound, deeply if possible, always avoiding those places where anatomy teaches us that important nerves and blood-vessels are situated. For this purpose, a bistory is to be employed with a straight and long blade, terminated by a button similar to that of Pott's probe-pointed bistory: it should be made to cut by pressing on its back with the fore finger of the left hand, which is preferable to all other directors. When the wound is so far unbridled that the muscles cannot be confined by the aponeurosis, in the swelling, which is to take place, is it necessary to pass a seton through the passage of the wound?

Many practitioners advise it, and employ it, as they say, to favor the suppuration of the wound, and the separation of the sloughs. But ought we not to consider the seton as a foreign body, whose presence increases the irritation and the

* M. Richerand's rule for dilating gun-shot wounds seems too limited and yet too general. It is too limited, because it confines dilatation to a limb, or to the fascia of a limb, whereas it may be proper in other parts of the body, which are suffering from inflammatory tension. It is too general, because it directs dilatation in all cases where a limb has been shot through. Mr. Hunter tells us it is impossible to state what wound ought, and what ought not to be opened; but that we must convince ourselves of the necessity of dilatation from the circumstances of the case, and see clearly that some good is to be done by it. He prefers dilating after the first inflammation has subsided. In Mr. Chevalier's admirable treatise on gun-shot wounds, nearly the same principles are laid down. We may, perhaps, venture to state, 1st. *That any part may be dilated, which, by its inflammatory tension, produces dangerous constitutional irritation, provided that the structure of the part does not prohibit.* 2d. *That the time for dilatation is when inflammatory tension exists, and when, of course, the utility of an operation is sufficiently conspicuous.* M. Richerand deserves the reputation of restricting the dilating practice within narrow bounds, compared to what his immediate predecessors directed. M. Percy would have the wound dilated upward and downward, not only through the external parts, but the whole depth of the wound; to effect which it would sometimes be necessary, in a muscular patient, to open the limb from one end to the other. The fascia must be hacked like a saw (*dentelé*), and if the bone is shattered, all broken pieces are to be fairly exposed, and some portion of the sound bone must also be uncovered!

inflammatory swelling? The seton is never changed without producing great pain, especially when a nervous cord runs near the wound. The sloughs separate when once the suppuration is well established. The seton is then dangerous in many cases, and when it does no harm, it is at least useless.

To chance, and not to his genius, did Ambrose Paré owe the useful discovery of the true method of treating gun-shot wounds. The surgeons of his day, ignorantly cruel, applied spirituous and caustic applications to these wounds. Paré, when employed in the French army at the siege of Turin, himself followed this murderous practice; but having exhausted the store of remedies commonly employed, he was compelled to use simple digestive applications, and found his patients much better under the use of them, than when treated by the old method.

After the extraction of foreign bodies, and properly unbridling the wound, gun-shot wounds require the same treatment as common contused ones: the application of pledgets of lint, covered with simple digestive ointment, together with spirituous and resolvent fomentations for the first twenty-four hours; after which, emollient cataplasms are to be applied over the lint.* As we must expect an inflammatory swelling, proportionate to the violence of the contusion, a copious bleeding is indicated, when the subject is young, vigorous, and has not experienced too violent a shock. If there should be a general stupor, or even if it be merely local, we must abstain from bleeding, and employ tonic instead of antiphlogistic remedies.

All practitioners who have written on the treatment of gun-shot wounds, concur in declaring the utility of emetics, administered on the very day of the accident, or on the day following, before the appearance of inflammatory symptoms. This practice is particularly advantageous in armies, where, from the use of bad food, and inevitable irregularities in diet, the alimentary passages are crowded with impurities. Larmartinière, in a memoir inserted among those of the Academy, has particularly insisted upon this evacuation, for preventing the traumatic fever from degenerating into one of a bilious or putrid character. This fever kindles up, the wounded part swells, suppuration takes place through the passage of the wound, detaches and sweeps away the sloughs which cover its surface; after the complete separation of

* There seems to be no satisfactory reason why poultices should not be applied in the first instance,

the slough, the wound is reduced to the condition of a common contused wound, and requires the same treatment.

We have hitherto supposed the cure not to be retarded by any particular accident: it is, nevertheless, exposed to all those which are capable of retarding the cicatrization of suppurating wounds. Sometimes also a hemorrhage takes place on the separation of the slough. The well educated surgeon will foresee this accident from the relation of the wound to the situation of important arteries; he will place an intelligent assistant near the patient, with instructions how to check the hemorrhage, till effectual aid can be given.

The wounds of fire-arms, complicated with fractures of bone, are much more dangerous than those we have hitherto spoken of. A greater or less commotion always accompanies these fractures, which are called comminutive, because the bone is broken into a number of fragments. Musquet balls less frequently produce these effects than cannon balls, pieces of bomb, and other large bodies. In sea fights, there are few slight wounds; the cannon balls dismasting the ships, the sailors are crushed by the weight of the spars; the splinters of wood, separated from the body of the vessel, are thrown with violence upon the combatants, and fracture their limbs, unless they completely tear them away. What is to be done under such circumstances? Is amputation proper in all cases of comminutive fractures with wound, and excessive contusion of the soft parts, whatever be the cause which produces them?

There was a time when a much greater number of amputations were performed in the armies of the other nations of Europe than in the French army. This practice, though dictated by an inhuman policy, was the most advantageous, according to the opinion of Bilguer, surgeon-general of the armies of the King of Prussia. According to him, amputation is rarely indicated, and we ought almost never to have recourse to it. The dissertation in which he unfolds these principles, was the subject of such scandal in France, that Lamartinière, then at the head of French surgery, thought it his duty to refute it in a memoir, which is inserted among those of the Academy of Surgery. It was suspected that Bilguer had accommodated his doctrine to the views of the great Frederic, who, being the king of a poor country, was not fond of multiplying invalids at the expense of the state.

It might seem that in cases where a limb is entirely carried away by a ball, amputation would be unnecessary; but this is one of the cases in which the necessity for performing the operation is best established. How could a wound get well in which the flesh is torn to shreds, the bone splintered, and
the

the whole limb disorganised? How long should we have to wait the separation of the sloughs? What an enormous suppuration would take place in the midst of so much disorder? The fractured bones have received so violent a shock, as perhaps to affect the articulation; the splintered part may extend into it. If the patient escapes the accidents which first occur, will the cicatrization of such an uneven surface be possible, and what firmness would the cicatrix have after it formed? All these considerations must decide us to practise amputation upon the spot, on limbs carried away by a cannon-ball, or by any other body thrown with great violence. The operation is to be performed at some fingers' breadth above the wound, unless we have reason to suspect that the fracture extends to the joint above. In case a ball had carried away the foot at two inches above the ankle, perhaps it might be better to amputate the thigh, than to cut off the leg below the knee. The same would be proper in the arm. If the arm should be carried off near its upper part, the shoulder joint must be amputated. Instead of amputating the hip joint, the os femoris may be sawed off near the joint. The end proposed in all these operations is to substitute, for a torn and horribly contused limb, a simple wound, whose even surface is capable of a quick and regular union.

A second case requiring amputation, is when the limb is so much injured, as to be threatened with inevitable gangrene. If the bone is splintered into a great number of pieces, the flesh excessively bruised and reduced by contusion almost to a jelly, and the solids confounded with the extravasated fluids, the mortification of the limb is then certain, and amputation must be practised on the spot, before the storm of inflammatory accidents commences, and a burning fever is kindled.

If the favorable moment has been lost, or if, having wrongly judged it possible to save the limb, the wounded parts sphacelate, yet the patient resists the ravages of disease, we must then amputate at the boundary line between the living and dead parts, waiting, however, till that line be decidedly marked.

A fourth case for amputation is, when the inflammatory swelling, having been happily combated by bleeding, and an antiphlogistic regimen, terminates in such a copious and continued suppuration, that the life of the patient is threatened by a hectic.

Surgeons have been divided as to the propriety of amputating on the field of battle. It seems to be proper when the wounded man is to be immediately transported to a distant hospital. The difficulty of transportation; the in-

convenience of the waggons, in which the patients, lying in heaps, are exposed to the most painful jars, the splinters of bone continually penetrating deeper from the motion of the carriage, thus carrying the laceration and contusion, already great, to the utmost extreme, while the patient is ill protected against the external air and storms, all impress on us the necessity of immediate amputation, to save the patient from cruel tortures, and an agonizing death. It is true that amputation at the moment the system is suffering the general commotion, occasioned by the shock, does not succeed so often, as in cases where the necessity is brought on by consequent accidents. But although this be admitted, it is not probable that so large a proportion would be saved by deferring the operation, because they would fall sacrifices to fever, inflammation, gangrene, &c.*

What method of treatment is to be pursued in cases of gun-shot wounds, where the injury is not great enough to render amputation necessary, and in which, however, the derangement is considerable? The incisions proper for unbridling, for discharging extravasated fluids, as well as for facilitating the search and extraction of foreign bodies, having been practised in the manner pointed out above, we must place the wounded limb on a bolster, made of the husks of oats; a splint-cloth is to cover the bolster, and upon this splint-cloth we are to place the separate strips of the bandage of Scultetus, or many tailed bandage; then a certain number of long compresses. All this apparatus is to be wet with camphorated spirit, or some other discutient. The wound is to be dressed with lint, the pledgets of which are covered with some relaxing substance, such as common cerate. Over these pledgets we apply the compresses, then the strips of bandage, as in any other compound fracture. Three bolsters of the husks of oats, and upon these bolsters three splints, are to be applied, one before and the two others laterally, the two last having been first rolled in the splint cloth, so that there should remain only room sufficient to place the bolster. All these are to be tied moderately tight by a sufficient number of bands placed over the splints. The wounded limb is then to be laid on a pillow so fixed as to form an inclined plane toward the body. In this way we favor the return of the fluids, which is often difficult, on

* Mr. Hunter states it as the result of experience, that few have done well who had their limbs cut off on the field of battle; while a much greater proportion have done well, in similar cases, who were allowed to go on till the first inflammation was over, and underwent amputation afterwards.

account of the shock produced by the commotion, and we have less to fear from gangrene, by the stagnation of the fluids.

One or two bleedings are to be performed immediately, provided the subject is young, vigorous, and has not lost much blood, which is commonly the case, for the surface of the wound, reduced to a slough, is dry, unless a large vessel has been wounded. In case of commotion and stupor, we must abstain from bleeding, and prescribe a generous cordial by spoonfuls, together with wine and other tonics.* Next we are, as before stated, to give an emetic, and keep the bowels open by gentle purgatives. This practice is good, not only in gun-shot wounds, but in all cases of compound fractures among the lower class of people, who are generally loaded with indigested food.

In the first twenty-four hours after the injury, the swelling and inflammatory fever commences. We must then apply poultices to the limb, and substitute a fomentation of marsh-mallows, or other relaxing herb, for the resolvents first applied.† The patient must be dieted; he must have acidulous, cooling, and diluting drinks, according to his taste and the season of the year.

If the inflammation terminates in gangrene, we must amputate, with the precautions already mentioned. If in suppuration, the quantity of pus will be proportioned to the extent and importance of the injury. The sloughs separate, the pus removes them, the wound cleanses, and the splinters re-unite to the bone, when they have been partially separated.

The disease now makes rapid progress towards the cure; but, in the greater number of cases, the termination is not so favorable. The quantity of pus, instead of diminishing, increases; and instead of being white and inodorous, as at first, it becomes sanious, fetid, and green-colored. Its abundance is such as that in spite of the closest dressing, and the most

* Local bleeding by leeches is recommended by the best authors, when the inflammatory swelling is great.

† Mr. Chevalier points out another case in which it is important to avoid bleeding. After the occurrence of profuse hemorrhage from gun-shot wounds, or a too free use of the lancet, the pulse becomes full apparently, and appears to demand a repetition of bleeding. But the apparent fulness of the stroke arises only from diminished tone and resistance in the coats of the artery, in consequence of weakness. They are dilated by a slighter impulse of the heart than usual. If the surgeon, misled by this pulse, takes away more blood, the patient will certainly die in a few hours.

methodical

methodical compression, it is absorbed and carried into the mass of the blood, where its presence excites the purulent hectic fever. The fragments of bone, being bathed in pus, do not consolidate; local sweats and colliquative diarrhœa bring on a marasmus, which carries off the patient in a few weeks. When the first symptoms of hectic appear, we must combat them by the internal use of tonics, as has been mentioned in speaking of suppuration. But when in spite of these the colliquative diarrhœa occurs, we must haste to save the patient by the amputation of the limb. The state of weakness is, as Bell remarks, favorable to amputation; but we are not to wait, as this author recommends, till the strength of the patient is exhausted.

When particular organs are wounded, the treatment will be modified, according to the nature of those organs and the extent of the wound. This will easily be done by a surgeon who has correct ideas of anatomy and pathology.*

To the Editor of the Medical and Physical Journal.

SIR,

HAVING observed in your Journal for July last, that there has existed a difference of opinion between Dr. Yeates and several other medical persons in Bedford, respecting a case of Ischuria, in which it has been asserted that the patient vomited her urine; and Dr. Y. having respectfully solicited communications from other practitioners on the subject, I beg to present your readers with the following case, which occurred in my practice, and which, I trust, will be considered as an additional proof of the occasional occurrence of urinous vomiting.

On the beginning of June, 1808, Jane Barret, ætat. 21, mother of one child, in going down some stairs fell between two barrels, in consequence of which two of her ribs were fractured near their angles, the spine and hip were much injured, and she remained lame on one side of the body until her death. When the accident happened she resided in Dudley, and became the patient of Mr. Cartwright, of that place. At the end of 20 or 30 hours, Mr. C. found it requisite to introduce the catheter, for the purpose of evacuating the bladder, and of relieving some violent spasmodic pains. While she remained under his care, Mr. C. appeared to have treated the disease with judgment and humanity; and, besides the application of other remedies, he was particularly diligent in the use of the catheter. On July 21, she was removed into this neighbourhood, when I was requested

* New England Medical Journal, October 1812.

to see her. Owing probably to the tardy arrangements of her friends, the catheter had not then been introduced during two days and nights, and she had discharged no urine. I drew off 10 ounces, and found on enquiry that, since the operation had become needful, this quantity had never been exceeded.

The catheter was employed sometimes once, sometimes twice, daily, until August 5, when it appeared that she could, with much pain and difficulty, evacuate the bladder spontaneously about once in 20 or 30 hours. During that period various medicines were administered with the view of promoting a secretion of urine; for there was a suppression as well as a retention of that fluid.

She was suddenly attacked, on August 1, with a violent pain in the stomach, which required the exhibition of twelve grains of opium to allay it. This returned afterwards on alternate days, and always terminated with sickness, and a vomiting of a fluid, possessing all the properties of healthy urine, with a disagreeable excess of uric acid. This urinous fluid was repeatedly discharged in the presence of myself and several other persons, and was minutely examined. It was observed, that on the days when this pain and vomiting occurred, no urine was discharged from the bladder; but on the intermediate days it was secreted and evacuated in the usual manner.

She remained in this state till October 21, when a troublesome constipation in the bowels commenced, and continued for ten days. This new symptom was probably owing to a tense tumor of considerable magnitude, which had then occupied the region of the kidneys, and was circumscribed, like an encysted dropsy. No fluctuation could be perceived in it, but it appeared to have arisen from a preternatural distention of one or both of the renal pelves, or from some other organic derangement in the kidneys. The pain in the stomach now ceased spontaneously, and the vomiting was attended with hiccough, and with urinous perspiration, which was particularly profuse on the forehead. No urine was discharged from the bladder; and after the bowels had been evacuated, the tumor rather subsided. The pulse continued at 90, the appetite was good, and she had not experienced any emaciation.

In this condition she was removed to the Shrewsbury Infirmary, where she soon afterwards died. I have never heard whether the body was opened after death.

I take the liberty of communicating the successful treatment of a case of pulmonary consumption by *Carbonate of Barytes*. The patient, a female, about 20 years of age, had

had taken the remedies usually prescribed in such cases, without deriving any advantage; and, having rapidly declined into an advanced stage of the disease, was considered to be beyond the possibility of recovery. She had been confined to bed about three months, expectorated a pint of purulent matter daily, was nearly exhausted by hectic fever, and her respiration was most distressing. While she was in this condition, I began the exhibition of Carbonate of Barytes on August 4, 1813, in the dose of one-sixth of a grain, made into pills with conserve; and on the 13th had gradually increased it to 20 grains, twice daily. At that time a slight sickness commenced, on which account the medicine was discontinued; and in a few days afterwards an eruption (lichen simplex) appeared over the whole body. When this event happened, the symptoms of pulmonary disease began to diminish; and after it had continued three weeks, they entirely subsided, leaving the patient in good health. Having had no previous experience with the Carbonate of Barytes, which has, I believe, been considered to possess very deleterious properties, I cannot say whether the eruption on the skin might have been produced by its influence or not; but may perhaps be allowed to recommend a farther trial of it in hopeless cases of pulmonary phthisis, where the experiment might be admissible, and the practitioner might have time and opportunity to notice its operation.

Bridgnorth,
Oct. 27, 1813.

I am, Sir, yours, &c.

J. M. COLEY.

To the Editor of the Medical and Physical Journal.

SIR,

THE memoir on Medical Reform, by a disinterested Physician, in your last Journal, certainly contains some very excellent observations, but also many incongruities. He sets out with stating the importance of securing to society a sufficient number of duly-qualified practitioners, who shall be able to accommodate themselves to the various classes and conditions of the community, so as to afford to each the best assistance that the present state of medical science will admit of, and which he deems must be admitted by all to be a matter of grave and deep importance. And though he thus expresses himself very desirous to improve the professions of physic and surgery, and thereby to benefit the public, yet is he decidedly hostile to the measures at present in contemplation for the attainment of those important objects, although they appear admirably calculated for the purposes intended.

He then proceeds to specify the several kinds of medical practitioners who are to be found at the present day dispersed throughout the British islands, and afterwards comments on each of their characters, in which the apothecary comes in for no small share of censure, although he is now and then admitted to be an useful character, and found to be as deservedly trusted as those who move in the higher departments of the profession, even under the auspices of a university degree, as the following observations, indeed, would almost tempt one to believe was true.

Speaking of the degradation and neglect to which physicians are exposed, the author of the memoir asks, "May they not be distinctly traced to the numerous and discordant sources from whence the physicians have been derived; to the want of suitable education being afforded by those seminaries, to whose graduates, notwithstanding, the greatest privileges are by law established; and, finally, to the corrupt practice of other universities, in granting degrees on private testimonials of qualification only, which testimonials are too often obtained by private favor, or gross venality, and granted to individuals whom no university ought, consistently with a due regard to its own reputation, to acknowledge? The excess to which this latter system of doctor-making is carried, or the systematic corruption by which certificates are obtained, is far from being generally imagined; and I speak from certain knowledge of the facts, when I allege that whoever can offer a colorable pretext for making an application to Aberdeen or St. Andrew's, need not be debarred from his degree by any difficulty in finding *physicians ready and willing to grant the necessary certificates*, provided he is prepared to make the pecuniary recompense required. And the *trade* seems to be *both prosperous and lucrative*, for a *recently made* doctor of this class, whose university fees at St. Andrew's amounted to only 24*l.*, had his total expences increased by such contingencies as I am alluding to, to 150*l.* Further, it is only of late that such gross venality and infamous corruption in the profession of physic have come to my knowledge: I have oftentimes, indeed, heard such allegations advanced, but contemned them as groundless calumnies. I have now, however, had but too good proof for asserting, that the granting of certificates to candidates for Aberdeen or St. Andrew's degrees in physic, is become a matter of *regular barter and trade*; and that a sufficiency of money is all that is required to advance any who has ever dabbled in medicine to the disgraced and unenviable rank of M.D."

Surely there is no regular-bred apothecary in the kingdom

who

who would suffer by a comparison with a physician who has obtained his academic honors in this manner, and not one of the former but what is more justly entitled to public confidence. And though the writer of the memoir does admit, "that among apothecaries may be found individuals possessed both of learning and abilities, and who, by their association, would reflect credit on any College, whether of Surgeons or Physicians;" yet he is by no means desirous that any plans should be adopted for securing to the public a greater number, and a continuance of such characters; but on the contrary he is only anxious for their entire extinction, as though they were so many excrescences to the profession, notwithstanding the above admission, that there are men to be found among them of acknowledged merit, and likewise without any proof that the regular apothecary is generally more deficient than the rest of his medical brethren, or less worthy to be trusted than the physicians above described.

The same writer, however, does not appear to be aware that the regular-bred or legitimate apothecary of this country is a very different character from the many who pretend to this appellation: he is understood to be a man who, having served an apprenticeship to the immediate business of an apothecary, afterwards perfects himself in a knowledge of diseases, by an attendance on lectures, dissections, and hospital practice, although he may afterwards confine himself to the mere business of an apothecary; and this is the education that a respectable practitioner of this kind is always expected to have had. And that no persons, but those so educated, and who shall afterwards undergo examination to give proof of their ability, be allowed to practise as apothecary or surgeon-apothecary, is the object sought by the intended application to parliament; and, without the adoption of some such measures, there can be no security to the public of having a qualified body of practitioners of any kind. For even according to the statement of the disinterested Physician, as may be seen above, there are very frequently imperfections and abuses in the medical educations of physicians, as well as in those of apothecaries; and although the surgeon, who has his diploma from Surgeons' Hall, is the only character in his eyes fitted for the practice of physic as well as surgery, yet, as he admits that no *medical* examination is imposed on the surgeon when he obtains a diploma, I cannot conceive that there is any security given to the public of his acquaintance with the practice of physic; though, notwithstanding this, the same writer asserts, that a surgeon starting under the auspices of the Royal College of Surgeons,

geons, must therefore necessarily be better acquainted with pharmacy and the practice of physic than either the physician or apothecary, though it is notorious that some of the most eminent surgeons in town, and even public teachers of surgery there, are oftentimes wholly unacquainted with the practice of physic, and, moreover, it is no uncommon thing with them to speak of it in terms of contempt. The two professions are perfectly distinct, and I know not how a young man that is brought up to surgery *only*, can know physic more, unless intuitively, than one bred to physic can know of surgery; and, notwithstanding the sneers cast at apothecaries for uniting in themselves the practice of surgery and pharmacy, I believe them to be just as well qualified for the purpose, as any other member of the profession is who has only qualified himself for a particular branch.

The mere surgeon, surely, who undertakes the practice of physic and pharmacy without a suitable knowledge of these branches, is just as deserving of contemptuous treatment as the apothecary who without an adequate knowledge undertakes surgery, and there is generally as much danger to the public in a deviation from the particular practice of the one as the other; and the only security that can ever be afforded to the public of having medical men capable of acting with ability in the united capacities of surgeon and apothecary, will be, by the grant of certificates, by some superintending institution, to those who are found qualified for the combined practice.

If the members of the profession could but be persuaded to lay aside their feuds and jealousies, and would unite in the adoption of some plan for preventing all uneducated and unqualified persons from practising in any branch of the profession, such a measure would give to the latter all the improvement that it is susceptible of, and to men of merit a much wider field of practice than they will ever have without some such regulation. It is in vain to hope for improvement without it, by putting down these or those particular men of the profession, because the other branches of it would become stocked in proportion; for instance, if there were to be no apothecaries, there would then be a greater number of surgeons and physicians; and therefore the latter persons would experience no relief from the removal of the former, although an object so much aimed at in the present day; and I am convinced that the only relief that can ever be given to the profession generally, will be by the prevention of all irregular persons from entering into it.

It is admitted by the writer of the memoir on medical reform, that a degree of doctor of physic from either of the universities

universities of Oxford and Cambridge, is not any proof that the individual on whom it is conferred is therefore fully competent to the practice of physic, and worthy to be trusted with the lives of the community; for he observes, "To neither of these universities does any efficient school of physic belong. They confer medical degrees, however; but rather as being arrived at in the regular course of academic discipline, and attained by a certain observance of acts and terms, than as merited by any full or perfect qualifications in the art of curing diseases; yet these graduates possess privileges such as no other medical men enjoy, and are entitled to demand admission as fellows of the London College of Physicians, without undergoing the scrutiny of an examination, to which all other candidates are subjected."

We know also pretty well, from the same writer, how degrees are obtained from the universities of Aberdeen and St. Andrew's; and perhaps there are very few other universities, (for the accounts of the former ones are apt to make one suspicious,) from whom a doctor's degree is any proof that the person possessing it has been sufficiently educated, and has really studied during a university period all the branches of medicine. And notwithstanding too all that has been said in favor of the person, as a general practitioner, who has a diploma from Surgeons' Hall, yet such a person undergoes no examination in medicine or pharmacy, nor is obliged to give any proof of his acquaintance with either.

From what, therefore, has been stated, I really think the regular apothecary is as justly entitled to confidence as any of his medical brethren, although their names may possibly be of a more imposing kind.

But I should suppose that it must appear pretty evident to all that have duly considered the matter, that the only way to improve the profession, and at the same time to secure to the public a regular supply of competent practitioners, will be, by the imposition of such restraints as will prevent any individual from practising in any one department of it, who has not had a suitable medical education; and who should afterwards, before he be admitted to practise, give further proof of his medical or surgical attainments, or of both, by an examination before competent judges: and I know of no better way for the accomplishment of all this than in the manner proposed by the new bill of the London Committee of Apothecaries and Surgeon-apothecaries, to the support of which I would therefore earnestly recommend every sincere friend to the profession.

The writer of the memoir on medical reform, has, in reality, proposed no reform, or at least nothing that appears

to me calculated to remove the evils under which the profession labors. He has, indeed, pointed out how improperly many universities grant degrees in physic, and how frequently unqualified apothecaries act in all departments of physic and surgery; likewise how much better it would be for the surgeon to unite in himself all the branches of physic, surgery, midwifery, and pharmacy, than for any other individual to do so: but not one word has he said about the advantages that would result both to the public and to the profession, from the exclusion of uneducated persons;—and I do really believe that if all such were in future to be prevented from practising either in pharmacy, physic, or surgery, together with the necessity that all persons should undergo examination before they were allowed to practise, that then the professions of physic and surgery would receive all the improvement they are capable of admitting, and the most beneficial consequences would soon result to the public.

The Board of the National Vaccine Establishment of London, in their last report, remark, with great concern, that the mortality from small-pox has this year increased very considerably; and among the causes which have conspired to occasion it, they allude to the practice of inoculation for that disease daily carried on in the metropolis by a number of *unauthorised* practitioners. This is one among the many striking proofs of the mischief done by suffering those persons to practise whom I have been reprobating, and is likewise a further confirmation of my opinion of the necessity of such legislative interference as will keep unqualified persons out of a profession, in which is oftentimes placed the power of conferring or taking away life. The injury occasioned by continuing the infusion of small-pox alone is incalculable, and to use the words of the Board above-mentioned, “is continuing a disease which has for centuries been no less detrimental to the population of states, than prejudicial to the health of mankind.”

Bristol, Oct. 20, 1813.

AN APOTHECARY.

For the Medical and Physical Journal.

APPENDIX to the REPORT of the LONDON COMMITTEE of
APOTHECARIES and SURGEON-APOTHECARIES.

(Continued from p. 392.)

No. VIII.

SIR,

Brook Street, Jan. 2, 1813.

THE ordinary Meeting of the College will be on the 12th of next April; but finding that it is the wish of the Committee of Apothecaries that their Report should be submitted to

to the College of Physicians at an early period, I will take the first convenient opportunity (which I hope will occur in this month) to lay it before them.

I have the honor to be, Sir,

Your very humble Servant,

To G. M. Burrows, Esq.

F. MILMAN.

No. IX.

*Apothecaries Hall,
Dec. 30, 1812.*

SIR,

I am desired by the Master and Wardens of the Society of Apothecaries, to acknowledge the receipt of your letter as Chairman of the Committee appointed by a General Meeting of the Apothecaries of England and Wales, on Friday the 20th of November last, which, together with the Report of the said Committee, were laid before a Court of Assistants on the 22d instant, when it was resolved, that its farther consideration should be deferred till they had obtained the opinion of the Royal College of Physicians on the same subject, which it appears by your letter has been submitted to them.

I am, Sir,

Your obedient humble Servant,

S. BACKLER, C. K.

*Mr. G. M. Burrows, Chairman of the Committee
appointed by a General Meeting of the Apothe-
caries of England and Wales, &c. &c. &c.*

No. X.

*Royal College of Surgeons,
Jan. 18, 1813.*

SIR,

I have laid before the Court of Assistants your letter of the 11th, addressed to the Master, Governors, and Court of Assistants of this College, from the Committee appointed by a General Meeting of the Apothecaries of England and Wales, held at the Crown and Anchor Tavern, on Friday the 20th of November, 1812, together with a copy of the Report of the Committee, and the Resolutions of such General Meeting of the 20th of November; and am directed to inform you, that the Court of Assistants does not intend to interfere with the subject of such letter.

I am, Sir,

Your most obedient humble Servant,

G. M. Burrows, Esq.

E. BELFOUR, Sec.

No. XI.

*Bloomsbury-square,
Jan. 21, 1813.*

SIR,

The Committee of Apothecaries having sketched a plan, which, upon mature deliberation, they consider adapted to
NO. 178. 3 F the

If the request with which they concluded their letter to the College of the 11th of December be assented to, the Committee will instantly submit the details of their plan for the consideration and approbation of yourself and the fellows, as it is their anxious desire to postpone their final arrangements until the last moment, to give all possible time for the decision of the College to be declared and received.

I have the honor to be, Sir,

Your obedient humble Servant,

To Sir F. Milman, Bart.

G. M. BURROWS, Chairman.

Royal College of Physicians,

Jan. 22, 1813.

SIR,

I am directed to enclose you a copy of a Resolution passed at a meeting of the College this day; viz.

The College of Physicians cannot entertain the proposals from the London Committee, naming themselves the Committee of Apothecaries of England and Wales, for improving and protecting the profession of the Apothecary, Surgeon-Apothecary, and Practitioner in Midwifery, until they shall have received some official communications on the subject from the other chartered bodies, which are more immediately interested in the proposals.

I am, Sir,

Your obedient Servant,

G. M. Burrows, Esq.

J. HERVEY, Reg.

The following Note was sent, with the outlines of the proposed plan, to the Royal College of Surgeons, and to the Society of Apothecaries:—

The Committee of Apothecaries beg leave to present
to the

of the of copies of the outlines of their proposed plan for improving and protecting the profession of the apothecary, surgeon-apothecary, and practitioner of midwifery, in England and Wales.

Holles-street, Jan. 22, 1813.

W. T. WARD, Sec.

Bloomsbury-Square,

Jan. 27, 1813.

GENTLEMEN.

The answers of the Royal Colleges of Physicians and Surgeons

Surgeons to the letters of the Committee of Apothecaries of England and Wales, of Dec. 11th ultimo, were last night submitted to the Committee.

At the request of the Committee, I have the honor to enclose to the Master, Wardens, and Court of Assistants of the Society of Apothecaries, copies of those answers.

As the time for applying to parliament is so near as the 2d of February, the Committee take the liberty of soliciting, if there be no competent court held in the interim, that the master would have the goodness to summon a special court, to take the said answers of the Royal Colleges, and the application of the Committee, into consideration.

I have the honor to be, Sir,

Your obedient humble Servant,

G. M. BURROWS, Chairman.

*To the Master, Wardens, and Court of Assistants
of the Society of Apothecaries.*

No. XV. *Bloomsbury-square,
Jan. 28, 1813.*

SIR,

I have laid before the Committee of Apothecaries the Resolution of the Royal College of Physicians of the 22d instant, in answer to their letter dated December 11, 1812, and communicated to me by the Registrar of the College on the 24th.

The Committee beg leave to present you with copies of the answers returned by the Royal College of Surgeons and the Society of Apothecaries to the aforesaid letter, which the Committee request you will do them the honor to lay before the Royal College of Physicians.

The Committee immediately submitted a copy of the resolution of the College of Physicians to the Master, Wardens, and Court of Assistants of the Society of Apothecaries.

The Committee respectfully suggest to the President and the Fellows of the Royal College of Physicians, that the two other chartered medical bodies, to whom the College of Physicians refer as more immediately interested in the proposals for improving and protecting the profession of the apothecary, surgeon-apothecary, and practitioner in midwifery, have in their answers most unequivocally acknowledged the body which has addressed the three chartered medical bodies as a Committee, elected at a meeting of the Apothecaries of England and Wales.

I have the honor to be, Sir,

Your obedient humble Servant,

To Sir F. Milman, Bart.

G. M. BURROWS, Chairman.

No. XVI.

SIR,

Brook-street, Jan. 31, 1813.

I have received your letter of the 28th of January, inclosing copies of letters to you from the Royal College of Surgeons and from the Society of Apothecaries. I am bound by the resolution of the College of Physicians on the 22d of this month, a copy of which has by their command been sent to you, to wait for communications addressed to them by the corporate bodies above mentioned, before I can take any further steps in this business.

I have the honor to be, Sir,

Your most obedient humble Servant,

To G. M. Burrows, Esq.

F. MILMAN.

No. XVII.

SIR,

Apothecaries Hall, Feb. 5, 1813.

I am directed by the Master and Wardens of the Society of Apothecaries to inform you, that, in compliance with the request of your Committee, they have summoned a special Court of Assistants, to take into consideration the answers you have received from the Royal College of Physicians and Surgeons; and I am directed to send you their Resolution on that subject.

I am, Sir,

Your obedient humble Servant,

G. M. Burrows, Esq.

I. BACKLER, Cl.

Apothecaries Hall, Feb. 4, 1813.

At a special Court of Assistants held this instant:—

“Resolved—That this Court, having taken into consideration the reply of the Royal College of Physicians to a letter addressed to them from the Committee of Apothecaries of England and Wales, cannot (as a body) concur with that Committee in their intended application to parliament.”

(A copy)

I. BACKLER, Cl.

No. XVIII.

SIR,

Ely-place, Feb. 18, 1813.

The College of Physicians having directed me to obtain a copy of the bill proposed to be brought into parliament by the Society of Apothecaries, I applied to my friend Mr. Wells, who has been so obliging as to furnish me with the outlines of the plan, and to refer me to you for a copy of the bill. I will, therefore, thank you to furnish me with a copy as soon as it is printed, or to favor me with the loan of the draft of it in the mean time, that I may lay it before the College for their consideration; it being the wish of the Society, as I am informed by Mr. Wells, to have the concurrence

currence of the College in their proposed plan. I shall beg the favor to be informed when leave is given to bring in the bill, and the progress of it, &c. and am,

Sir, your obedient Servant,

JOHN ROBERTS.

To Charles Druce, Esq. Billiter-square.*

No. XIX.

Bloomsbury-square,

Feb. 23, 1813.

SIR,

Your letter of the 19th to Mr. Druce, requesting, at the desire of the College of Physicians, a copy of the bill prepared to be brought into parliament, has been sent to me; and I have, herewith, the pleasure of forwarding the printed abstract for that purpose. I lament it has been so long delayed, but it is to-day only that I could procure it from the printer's.

In presenting this document to you, to lay before the College, I cannot omit this or any other opportunity of expressing that the Committee of Apothecaries still entertain the same solicitude for the sanction and concurrence of the College, in the present application to parliament, on a measure so intimately connected with the public welfare. They will at all times be ready to manifest the sincerity of their intentions; and in any way that the College will condescend to point out,

Our solicitor, Mr. Druce, has instructions to communicate every information required by any of the constituted medical bodies.

I am, Sir,

Your obedient humble Servant,

To J. Roberts, Esq. Ely-place.

G. M. BURROWS.

Copies of the abstract were at the same time sent to the Royal Colleges of Physicians and Surgeons, and to Apothecaries Hall.

To the Editor of the Medical and Physical Journal.

SIR,

I ATTENDED some time ago, in my professional capacity as physician, a person laboring under diseased liver and dropsy, whose urine, while unusually thick and turbid, much abounded with bile.

* Solicitor for the Committee of Apothecaries and Surgeon-Apothecaries of England and Wales.

On coming into the sick chamber one morning, the nurse, with tokens of much surprise, exclaimed, that a most extraordinary circumstance had happened! When, pointing to the urine, there appeared floating on its surface a number of bodies of different magnitudes, which had the appearance of light-brown colored, dark-spotted, small birds-eggs.

I carefully took one, about three-fourths of an inch in length, and relatively proportioned, into the palm of my hand, and looked attentively at it for some time. On a slight pressure, it shivered into small thin pieces, devoid of apparent contents.

This is a phenomenon that doubtless must have been noticed by others, but which I never saw before, though I have been more or less extensively engaged in the practice of medicine for a long period.

It would seem easily accounted for, by conceiving air-bubbles to have formed on the surface of the urine, and to have obtained the shape of eggs, by being encrusted with phosphate of lime, or the composition productive of egg-shells, and which doubtless abounded in the fluid.

These bodies, which, in external appearance, perfectly resembled birds-eggs, show that there is a natural determination in the component parts of the species of testaceous matter, of which both are constituted, whether as enveloping air or still more solid materials, under particular circumstances, to assume the egg-like form.

I mention the facts as they occurred to me; and as they seem to lead to conclusions, in regard to the shape and exterior formation of eggs, not generally admitted, I could wish you to let them have a place in your valuable Journal.

Wolverhampton, Sept. 7, 1813.

G. H. TOULMIN.

To the Editor of the Medical and Physical Journal.

SIR,

A COPY of the following letter has been forwarded by post to the Chairman of the Committee of Apothecaries; but as it contains some facts which I conceive are not generally known, I should feel obliged by your giving it a place in the Medical and Physical Journal.

Clifton, Bristol,
Oct. 24, 1813.

I remain your obedient Servant,

C. W. S.

To George Man Burrows, Esq.

SIR,

THE great scheme of medical reform, at the head of which you are placed, seems to have excited that degree of interest

interest among medical men which its importance so justly demands; and, notwithstanding the diversity of opinions that exist among them, as to the best mode of carrying it into effect, all who are not otherwise biassed by interest are agreed that the measure is absolutely necessary.

If a too great attention to private interest were the principal cause of the failure of the original bill in parliament, the one which is now to be proposed cannot meet with the same fate; because those obnoxious articles which it contained, that would have affected so deeply the interest of one set of men, and was alleged by another to be an encroachment on their privileges, are left out.

The avowed intention of this letter is not to dissent from the substance of the new bill, the adequacy of which, for the attainment of what it is ultimately intended, I very readily acknowledge; but I wish to submit to your consideration an amendment to one of its paragraphs, and to propose another, which may have the combined effect of making the medical profession still more respectable, and of bringing over to your interest those who now appear to be decidedly hostile to it.

The great mass of medical men in this country are those who practise in the three branches of the profession, compared with whom the apothecaries, in point of number, bear a very small proportion, and even these are men of respectability, by no means inferior to the surgeon-apothecary either in education or in professional knowledge; so that I believe I may assert, without fear of contradiction, that ignorance has had no share in the limitation of their practice to medicine alone; in short, as there is no sort of difference between the visiting-apothecary and the surgeon-apothecary, (the druggists of the present day being what the apothecaries formerly were,) I think the bill might with a great deal of propriety be termed that of the general practitioner in medicine, surgery, and midwifery, in which the apothecary would be considered as included. Had this been originally adopted, the pen of scurrility, guided as it has been by the worst of passions, jealousy and avarice, could not have been called into action, because it would have wanted a subject on which to ground its sarcastic aspersions; the character of the general practitioner was always respectable, whilst the regular apothecary of the present day retains little else than the name of his predecessor.

The bill which you have proposed will, if it succeed, erect another medical tribunal in this country, which, notwithstanding its inferiority, will be derogatory to the interest, if not to the privileges, of the College of Surgeons; this accounts in the most satisfactory manner for the hostility evinced by
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that corporate body to the proposed bill, rightly judging that the generality of youths are not so emulous of honor, as they are of carrying into the country a certificate of their qualifications from an accredited body, and which no doubt they will attain in the easiest and least expensive manner. On this account it is that I would recommend to your serious consideration an amendment to the paragraph which I allude to, namely, instead of the new medical board being allowed to grant certificates for the addition of surgery to medicine, I would have it enacted, that all who intend to practise as surgeons, surgeon-apothecaries, or as apothecaries only, shall previously obtain a diploma from the Royal College of Surgeons; and then, *and not till then*, they may undergo another examination as to their knowledge in medicine, midwifery, &c.: in short, the general practitioner should undergo the same examinations (with the addition of midwifery) as the person who is qualified to act as full surgeon in the navy.

It may be asked, why should the visiting apothecary be obliged to undergo the same examination, with respect to surgery, as one who intends to practise exclusively in that branch? It is not for me to tell you, Sir, how frequently constitutional diseases arise from local causes, and how impossible it would be, in a case of this kind, for a practitioner, educated only in medicine, to discriminate between the cause and the effect, on which, unquestionably the life of his patient would depend.

I am aware that the examinations, instituted by the College of Surgeons, are not well calculated to discriminate between the ignorant and the well-informed, the industrious and the indolent. It is far from my intention to pass any censure on the respectable body which constitutes the court of examiners; acting on the established rules of the college, they no doubt do every thing in their power to detect imposture; but the system on which the examinations are grounded is, in my opinion, radically defective. A great number of young men who call themselves medical or surgical students, care not how they get through their studies, so long as they can ultimately gain a sufficient degree of knowledge to pass their examination; but how do they acquire this? not by dissection, for it is unnecessary; but from books, and their teachers, who further their views, and confirm them in their indolence, by giving them concise answers to particular questions; they get off by rote the origin and course of the nerves of the brain; the names of vessels that arise from the principal arteries; the contents of the mediastina, Glisson's capsule, and of their different cavities;

cavities; the origin and insertion of the abdominal muscles, and those of the extremities, thorax, &c.; in short, book anatomy, an attention to arrangement, and a certain degree of facility in answering questions, together with a slovenly dissection of an extremity or two merely to get a dissector's certificate, are qualifications that will allow their possessor to pass an examination in anatomy at the College of Surgeons, with perhaps more éclat than one who, disdaining such a mode of acquiring knowledge, has learnt it (where it only can be learnt) in the dissecting-room.

The evil which I have pointed out, (and I consider it to be a very great one) can only be remedied by instituting a course of examinations in anatomy over the dead subject, making one examinant point out the relative situation of parts, another to cut down on some particular artery, another to dissect the brain, &c. &c. By these means the court of examiners would be enabled to discriminate between one who has gained a practical knowledge of anatomy, and one who has acquired it in the manner which I have pointed out; and thus they would be able to reward merit, and to stigmatise those who have improperly employed their time.

There still remains another evil to be pointed out, although the remedy for it is not so apparent as for that which I have endeavored to show: it is the disgraceful practice, so notorious among all the classes in London, of carrying forged certificates with them, when about to be examined, as necessary vouchers of their having attained the age of twenty-two; and I will venture to affirm, more than half the whole number of students that pass the hall, impose on the court of examiners in this manner. I remain, Sir,

Your obedient Servant,

C. W. S.

To the Editor of the Medical and Physical Journal.

SIR,

I CONGRATULATE you, the medical profession at large, and all lovers of truth, on the appearance of the case of Ann Foulkes, from the pen of Mr. Gibbon. It is now before the world, and all those whose mental age will admit of clear discernment, will not fail to observe, that a grosser act of imposition was never practised on the weakness and credulity of mankind. I would willingly proceed instantly to the consideration of it, but I am compelled previously to say a word or two in justification of myself. From the letter of Dr. Yeats, contained in the 175th Number of your

NO. 178.

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Journal,

Journal, it seems most anxiously desired that my interference on the subject of Ischuria should be considered intrusive, as the matter originally commenced between the doctor and Mr. Gibbon. Now, when the difference of opinion arose between those gentlemen, the latter formally and professionally invited me to see the case, to inquire into its history, and to give my opinion upon it. I called, I saw, I investigated, and believed that deception was the order of the day. Subsequently and repeatedly I stated my opinion to Dr. Yeats, and he repeatedly pledged himself to prove the authenticity of the case. The case, *and nothing but the case*, was then pledged to be established; and to which, *and which alone*, the "written document,"* alluded to by the doctor in your Number for July, referred. By the way, I have now only to add, that the opinion which I shall hereafter give of urinous vomiting in general, was well known to Dr. Yeats before he published a single syllable on the subject.

I first saw Ann Foulkes, to examine her touching the reputed disease, a short time after her admission that her urine was again evacuated by its natural channel. She was then unwell, and confined chiefly to her bed. Her general look was such as I had known her to possess during several years past. She is thin and spare in body, constitutionally; and this natural scantiness of flesh is attached to her near relations, as well as to herself. At the above period, she was not less fleshy than I had known her to be several years before, when not complaining of indisposition; and though very thin, she had not the appearances of emaciation, either about her face, or any other part of her body. There was no flabby feel about her skin and muscles, and her breasts had more firmness and rotundity than are usually observed in women of her form. It is perfectly unnecessary for me to go through the whole case so amply detailed by Mr. Gibbon. I will remark only on a few points; but other circumstances cannot fail to strike the mind of every one, as tending to throw discredit on it altogether. Her appetite must have been moderately good, and her digestion tolerable, or her frame could not have been duly nourished, and her fæces healthy and natural. Great emaciation is the consequence of severe and dangerous diseases, especially with those of long continuance; but Ann Foulkes, after having weathered the storm six months, was as fleshy probably as

* The document was signed by Dr. Kerr, of Northampton; Dr. Alvey, of St. Neots; Mr. Short and Mr. Gibbon, of Bedford; and myself.

at any period of her life. Is it not wonderfully singular that emetics should have the power of almost invariably coaxing the urine to and from the stomach?—I think seriously, and feel the most indignant desire to reprobate the imposition; and yet I cannot altogether bring my mind to write gravely on the subject. Half a pint of urine, clear and unsullied, without the slightest possible admixture of any foreign matter, was shown to Mr. Gibbon by the hypocritical mother of the patient, as coming from the stomach *under the operation of an emetic*! But, away with the emetic, and all thought about it. Even were it admitted as a fact incontrovertibly established, that *pure* urine could be ejected by vomiting, I deny that it could be produced entirely free from other matter. Some particles of gastric juice and mucus must have escaped with it; and if not these, some particles of saliva. The action of vomiting **INVARIABLY** increases the action of the vessels of the salivary glands; and it must come home to the recollection of all your readers, that they never retched without evacuating some quantity of the salivary fluid. It is remarkable that, throughout this case of six long months duration, the catheter was never proposed for trial, and never introduced; although at no period did a symptom exist to render its use improper.* It is also worthy of remark that, *in the pure spirit of piety and truth*, two women declared on oath before a magistrate that they saw urine actually vomited from the stomach; though these women had previously asserted before two medical gentlemen of this town, that they never witnessed any thing of the kind. I cannot suppose that any man, after a serious perusal of the case at large, will regard it as a fact of urinous vomiting. I enter my protest against it, and shall bear the penalty of want of credence, whatever it may be, with fortitude, but not with submission. I have read of twenty thousand devils dancing a saraband on the point of a needle; and when I shall discern those infernal gentry tripping on the light fantastic toe and mingling in the dance, then, and not till then, shall I believe in the urinary aberrations of Ann Foulkes.

Now, when urine is secreted, and any cause exists to obstruct its natural evacuation, absorption, in some degree, must be the inevitable consequence; and the fluid thus taken up must unavoidably be passed on by the absorbent channels to the blood-vessels. Having once entered the veins, it

* It must not be forgotten, that Mr. Gibbon strongly and repeatedly urged the introduction of the catheter, which was objected to on other grounds besides the dislike of the patient.

commixes with the blood, is diffused throughout it, and becomes subject to the laws of the circulation. I admit, therefore, that *urinous particles may and must* have their exit from *any* and from *every* exhalent surface: indeed, under Ischuria, life could not be maintained without it; and I feel so strongly impressed on the subject, that, whenever a fatal case of lengthened duration shall occur, I will venture to affirm that, on dissection, *any* collection of a fluid, in *any* part of the body, would possess both the smell and taste of urine. But, when urine is once absorbed, I deny that, *as urine*, it can be evacuated. It must pass from every pore with the natural, or rather corrupted, fluid of the parts, in an altered and adulterated condition. From its quantity and unusual retention, it must be expected to preserve both its taste and smell; but as *pure urine* it cannot be discharged. And, with my view of the subject, it is utterly impossible, under the phenomena of Ischuria, that the stomach, or any other part, should be found to have the urine regularly, uniformly, and systematically, directed *to it*, and *it alone*, for weeks and months together.

But what avails all this.—We are told that vomiting of urine can take place for weeks, months, nay even years, together; and *facts*, “stubborn” and “indisputable,” are marshalled and arranged against us, of modern date, and drawn from the records of earlier time. **FACTS** are indeed stubborn things! and I am well aware that it is an ungracious task to question the veracity of statements, when introduced with specious front and bold assertion, and more especially when extracted from the *dead*, whose remains we are taught to touch with tenderness and awe. I desire not wantonly to doubt the word of any man; but surely, when I reflect on the writings of some medical authors, I am justly entitled to withhold my credence on matters which appear to me more supernatural than reasonable. In fact, were I called upon at this moment to credit every thing which has been published on medical subjects, I should be compelled almost to believe that a sovereign remedy existed for the cure of every disease. The press has often groaned under its labors to announce the birth of weighty remedies for formidable complaints; but when such helps have been submitted to the test of fair and honest experiment, they have usually been condemned for their imbecility and inertness. Whenever *very extraordinary* occurrences arise in pathology, the first duty of a medical man is, to doubt; his second duty, thoroughly to investigate; nothing ought to be granted; nothing ought to be published as true, *unless incontrovertibly witnessed and substantiated*. But it is a lamentable fact, that

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some medical characters possess a thirst for novelty which never can be allayed, and an appetite for the marvellous of insatiable voracity; they catch reports and assertions as they fly, and, instead of calmly interposing in the flight, in aid of reason and of truth, are eager only to add a feather to the wing.

Since the case of Dr. Senter, taken from the Transactions of the College of Physicians at Philadelphia, seems to be triumphantly brought forward as the most positive and decisive to establish the truth of urinous vomiting, I beg leave to go a little into the consideration of it. It appears that Lucy Foster, the subject of it, labored under ischuria more than three years; that, during the continuance of her disease, her urine was constantly secreted by the kidneys, and regularly passed to the bladder; but that she was totally incapable of evacuating it by its natural passage, except in two instances when under the influence of fright. She never failed to vomit urine in thirty or thirty-six hours, unless drawn off by the catheter; and to put this beyond a doubt, was often watched at such times as the recurrence of the vomiting was expected. On such occasions, the bladder was discovered to be full, hard, and tender to the touch; and the urine vomited, when compared with the urine drawn off, was found in every respect exactly similar. During the last twenty months of her complaint, she sometimes vomited gravelly matter; such matter also was evacuated with the urine on the use of the catheter—and on comparing several drachms of the gravel from both sources, it was found the same in color and consistence. Other medical men attended this extraordinary case, and among them, Dr. Mason witnessed the vomiting both of urine and gravel. At one period, no urine was vomited for three days, nor did any pass on the introduction of the catheter; it then was expelled at the umbilicus: and when the disease had continued a length of time, urine passed often by the rectum, latterly sometimes with gravel. At one time the patient was so exhausted by her sufferings as not to be expected to outlive the month; then vomiting more sandy matter than at any other period; and throughout her disease, she labored under continual fever, had great loss of strength, and gradually became much emaciated. Death, at last, put an end to the complicated machinery of her urinary viscera!

I disbelieve entirely the reality of this case. On dissection, no cavity of the body contained a drop of urinous matter, not even the stomach and intestines; in fact, the bare smell of it is not mentioned. Several hydatids, the size of a walnut, were attached to the *Tubæ Fallopianæ*, and the ovaria

ovaria were enlarged to the magnitude of a small hen's egg, containing a quantity of limpid fluid; and yet these parts had not the least smell of urine. The bladder was entirely sound; there was *nothing* calculous within it, no, not even the stone, of the existence of which Dr. Senter was previously and perfectly satisfied from repeated examinations. At the commencement of her disease, she was five days without passing a drop of urine in any way; this occasioned very great pain and distress, yet the fear of an instrument induced her to withhold a full acknowledgment of her situation from her friends! Ask those to believe this who have suffered the most excruciating tortures from a similar inability. I suspect the girl to have drank her urine. But supposing, merely for the sake of argument, that the urine was actually conveyed to the stomach, either by the blood-vessels and their exhalent terminations, after the regular process of absorption, or by the retrograde action of the absorbents, is it within the bounds of probability, setting impossibility aside, that calculous matter, once deposited in the bladder, should be removed by absorption, whether in a regular or retrograde manner? Would it not rather remain, and become a concrete in its urinary habitation?

Dr. Senter has not mentioned how long he sat to watch the recurrence of the vomiting; and as the disease began in June 1785, and the watching, apparently from the relation of the case, was not commenced until the December following, it is probable that the stomach, from being habituated to the stimulus of the urine, was able to retain it a considerable time,—and thus the vigilance of the doctor might be eluded, by the brackish draught being swallowed before his arrival. This retention of the urine on the stomach would also account for its being occasionally evacuated by the rectum. On the watch, no notice is taken of the state of the bladder after vomiting; and when Dr. Mason saw the vomiting both of urine and gravel, it is not stated that he had been on guard, or what was the previous and subsequent condition of the urinary viscus.

Surely I have now stated enough. But, amid all the wonders of this more than wondrous case, the disappearance of the urinary calculus is not the least remarkable; and Dr. Senter is all amazement in contemplating "by what secret instruments in her extraordinary system" it became decomposed! "'Twas strange, 'twas passing strange!" and I too, like the doctor, should marvel much, did I not feel disposed just to hint that the stone might never have existed. In fine, this case appears to be negligently drawn up, and unaccompanied with that attention to every minute particular

particular in all its bearings, which its extraordinary nature ought to have imposed; and the author's remarks upon it prove that medical science, in his hands, must be at least as retrograde as the movements of the absorbent system of Lucy Foster.

The author of the paper on Ischuria, in your Number for May, considers the different ways in which the circulation has got rid of urine, carried into it by the absorbents, as constituting the *vis medicatrix naturæ*; and he sees no difficulty in understanding how it should be so discharged, any more than any other absorbed fluid which has become useless or noxious to the constitution. This he illustrates by calling to the recollection of his readers instances of dropsies being speedily cured by sudden and spontaneous evacuations of large quantities of fluid from the stomach, skin, and intestines; and concludes that nobody can deny that the fluids which the exhalents had in such instances poured out into the stomach, intestines, and on the skin, were the same which constituted the dropsical swellings thus suddenly disappearing. Whenever the urine finds its way into the blood-vessels, mixing with the vital fluid, and its diffused particles are evacuated at any part with other matters, this should not be styled the *vis medicatrix naturæ*; it is a term which ought to be exploded, as it may sometimes lead to the grossest absurdities: for instance, when an aneurism exists, and pointing to the skin, its pressure produces ulceration, and blood is evacuated, the *vis medicatrix naturæ*, which expression might be employed as *scientifically* on such an occasion, would cut but a sorry figure indeed. A preternatural discharge of urinous particles under ischuria, and an effusion of blood from an aneurism, are consequences impelled by the irresistible laws of animated nature under disease; and one might as *justly* be termed the *vis medicatrix naturæ* as the other; but this would lead to the odd conclusion—that a preserving and a destroying effect is one and the same. As to large evacuations of fluid from the stomach, or other parts, under dropsical affections, being the identical fluid forming the disease, I think it extremely questionable. They may be explained in another, and, to me, more satisfactory manner. It is no uncommon thing for one diseased action to effect the cure of another; and the existence of a dropsy might be followed by a powerful determination to the stomach, the intestines, or the skin, producing sudden and profuse evacuations; and during such operation, the exhalent and absorbent vessels, connected with the dropsical parts, might be brought into a more healthy condition. Besides, it is well known that both vomiting and purging are powerful

ful agents in promoting absorption, and more especially when arising from spontaneity. This appears to me a more rational way of accounting for the casual cure of dropsy by spontaneous evacuation, than by supposing the fluid to be previously absorbed, and then directed to the point of expulsion; and it is more conformable with what is generally observed in the curative process by spontaneous occurrences. A vomiting, a diarrhœa, and an attack of inflammation on the leg, have sometimes proved critical in fever; and the sudden appearance of an eruption on the skin has occasionally removed severe internal disorders, when all the boasted efforts of the healing art have been fruitless and unavailing; but, surely, no medical man will undertake to assert that such incidents were an expulsion of the actual matter of disease.

I am, Sir,

Bedford,
Nov. 3, 1813.

Your obedient Servant,
JOHN PULLEY.

To the Editor of the Medical and Physical Journal.

SIR,

INSTEAD of entering into a discussion of a medical question, I find myself obliged to controvert a charge of unfairness attributed to me, with what justice let those judge who take the trouble of reading this correspondence. I must repeat by positive assertion that I never understood the original difference of opinion, whatever may have subsequently occurred, to have taken place from any other cause than solely from the symptom of vomiting of urine. I then entirely understood that as that was an impossible occurrence, the girl must have practised imposition. Here most probably the difference of opinion would have rested for ever without any further discussion; but what were the steps taken in consequence of this difference of opinion? A meeting of medical gentlemen is held at the request of Mr. Gibbon, all of whom had never met before, without any previous knowledge on my part that such meeting was to be held, and when I was from home. I understand the meeting to have been a casual one; but still it should have been postponed, as I could not be present, especially too as the meeting was for the express purpose of investigating a subject in which, as Mr. Gibbon himself states, I was very much concerned. Moreover, the impropriety of holding such a meeting in my absence was hinted to him. If all this be accidental, it nevertheless wears an ungracious appearance. A paper is drawn up at this meeting declaratory of the

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opinion

opinion that the vomiting of urine, as stated, appeared to be utterly impossible. Here again the difference of opinion between Mr. Gibbon and myself would have probably rested for ever; but what is next done? This document is submitted to the perusal of respectable persons, who say to me, "Well, doctor, you are quite wrong; vomiting of urine is utterly impossible!" In what predicament did I then stand? I must either have remained tranquil under the charge of having asserted the probability of the occurrence of a physiological fact which was understood to be declared by the profession to be an utter impossibility, or to have taken up the pen in my own defence: no man could hesitate which alternative to adopt.

This was exactly the cause which gave rise to the paper on Ischuria; and the form, manner, and nature of the publication, were calculated completely for medical discussion, without reference to any previous difference of opinion; thus endeavoring to avoid a protracted dispute about words misunderstood, expressions forgotten, and meanings misapplied. All I had in view was, to show that urinous vomiting was not so impossible an occurrence as some imagine, and that I was not singular in holding that opinion.

I may be allowed this explanation of my own feelings of what I originally understood. I unequivocally disclaim any intention of either directly or indirectly reflecting upon any individual whatsoever. If, therefore, Mr. Gibbon feels hurt, I cannot see why: he must thank himself for having obliged me to produce that paper in my own defence, and to impugn opinions circulated against mine. I have avoided discussing the nature of imposture, as that must depend upon a judicial inquiry into the credibility of human testimony, never having personally witnessed the disputed symptom. I am, however, very unwilling to condemn and consign to infamy any one from the statement of an uncommon occurrence, on the ground of the assertion of the impossibility of it, when I have proof that such an occurrence has taken place in various persons under nearly similar circumstances.

That Mr. Gibbon is satisfied his reasons are sufficient for his conviction against the story of the girl, I do not doubt; but surely he should allow me the privilege of reasons for my conviction also. I can have no objection to give a statement of the circumstances of the case; but whatever intention I may have had so to do, it is now a good deal repressed by the manner in which Mr. Gibbon has published his narrative. Personal reflections will not contribute to elucidate the subject. I could never hesitate to acknowledge the detection of an imposture, when clearly detected.

Much wiser heads than mine have been deceived by the artful contrivances of mankind; but I cannot agree that a person is an impostor, because professional men are divided in their opinions on the question of urinous vomiting.

As connected with this subject, I shall be much obliged, sir, by an insertion in your next Number of the accompanying case of vomiting of urine, extracted from the Philadelphia Transactions, a book in comparatively very few hands in this country.* I wish it to be inserted as a case of reference, and of much curiosity on this particular subject; and as further showing that urinous vomiting is not quite so fabulous as Mr. Gibbon thinks.

I must now advert to some other matters in Mr. Gibbon's paper, which, instead of being a dignified and dispassionate investigation, a calm statement of the reasons on which his conviction is founded, carries with it all the appearance of an angry *tirade* of personal reflection, and containing circumstances, from misunderstanding no doubt, which it is incumbent on me to correct.

I first saw Ann Foulkes about May 1808, by the desire of a very respectable dissenting minister, from his commiseration of the great sufferings under which she labored. My humble exertions to relieve were ineffectual. I was obliged, therefore, to leave her to her fate; and I saw and heard but very little of her till the winter of 1811. During this interval the druggist visited this girl of his own accord, from motives of humanity, and prescribed according to his own judgment unconnected with me. When I saw her in 1811, it was at a period long after the commencement of the vomiting of urine; I therefore could have nothing to do in the sanction or control of the original exhibition of the remedies, whatever opinion I may have given of their application. A list of medicines which had been given was shown to me. The druggist or any person would be of equal use, for no one could render her any service, was an observation which I recollect to have expressed. The tumefaction in the epigastric region, at all the times that I ever saw it, was in my estimation a distension of the stomach; and so is the opinion of other medical gentlemen besides myself who

* When the circumstances and doubts of this girl's story were bruited abroad, many persons of curiosity and observation were desirous of knowing how far any analogous histories were upon record. This book, as containing Dr. Senter's case of urinous vomiting, was therefore lent by me to them. This is one among other reasons why I wish the case extracted from it to be published, for others who have not seen it, and who have applied to me for similar information.

examined

examined it. It was the complaint to all appearance like that to which Sauvages gives the name of *Meteorismus Ventriculi*, a complaint of no very uncommon occurrence in certain morbid conditions of the stomach, with which this girl has been long afflicted.

I know not how to reconcile the account given by Mr. Gibbon of her general good health, with the great suffering which I frequently witnessed. If she possesses the power, and practises the art of pursing together (if this be Mr. Gibbon's meaning, for the description is confused) the abdominal muscles, with a view to feign disease, no one could hesitate to pronounce her an impostor. It appears to me too complicated a contrivance for an ignorant country girl. But has Mr. Gibbon not been deceived by the convulsed state into which different parts of her frame have been frequently thrown, by morbid sympathy, with a highly diseased stomach, arising from organic mischief? Has he not frequently witnessed the agitated state of the abdominal muscles, when examining that part of the body for disease? This occasional swelling and subsidence of the stomach was a symptom of her complaint many years before the vomiting of urine. With respect to the quantity of clothing, provision, and money sent to her, I know nothing; but animal food in a solid form gives great pain when it has been taken: she therefore cannot eat it. That almost any person may practise deceit and imposition, is an axiom not to be denied. What embellishments and exaggerations of the girl's situation may have been added by those around her, I cannot say.

But I will not lose sight of the question of urinous vomiting, the original matter of discussion, by which my whole attention has been excited, and which I think was by no means an impossible occurrence, connected with the girl's other symptoms, if the authenticated records and testimony of the great and good in our profession are to be relied on. The resistance to the use of the catheter, as stated by Mr. Gibbon, forms no ground for considering the girl an impostor. I myself never past it, which I now regret, for the satisfaction of others; but I believe that urinous vomiting may take place when no urine shall be found in the bladder, in the *Ischuria Ureterica*; and some professional men of eminence are of opinion that other glands besides the kidneys may put on an action so as to secrete urine. I do not say that I agree to this doctrine. I did not see the girl nor know of it till some time after the vomiting of urine had commenced; very few times after that to the period of Mr. Gibbon's visits; and after these, not once, I believe, till after the urine had returned

to its natural channel, previous to which event I was not informed, to the best of my recollection, of the suspicion of imposition. It would have been well if Mr. Gibbon had informed me of the resistance to the use of the catheter. Time enough was allowed, for Mr. Gibbon visited her March 19th, and the urinous vomiting did not cease till on or about April 12th following.

During the whole of the period from the time that I was acquainted with the occurrence of the disputed symptom, I was much harassed with professional business, under considerable indisposition, though able to go abroad. I was also obliged to be in London, on private concerns, which occupied no inconsiderable portion of my time. Had moments of reflection allowed my mind to be impressed with the importance which the case has since assumed, or had even the slightest idea come across me of the practice of imposition, no circumstance of attention, however painful, or of scrutiny, however laborious, should have been omitted by me, even situated as I then was. I can only repeat what I have said in a former communication, that I credited the relation of those circumstances which I did not personally witness, from the extreme severity of affliction and suffering which very many most respectable persons, as well as myself, had previously, and have since frequently witnessed. I believed that this occurrence had happened to her as it happened to others, for I do not know how she could have taken it into her head to have invented it. It is matter of opinion,—I can say no more.

If Mr. Gibbon has incurred the ill opinion of persons whose favor he is solicitous to conciliate, it is not my fault; if he has involved himself in a dilemma by the mode of conducting the inquiry, I cannot help it. Instead of combating, by physiological discussion, the facts adduced in the paper on Ischuria, does Mr. Gibbon really think that the anonymous history of the tadpole Essex girl will have any weight with people of reflection, against the substantiated facts and opinions from the authority of such men as Haller, Morgagni, Sauvages, Heberden, and Gregory, whose works form the principal part of the principal shelf of the libraries of professional men? Is Mr. Gibbon really of opinion that this story can weigh against the sound judgment, the critical acumen, and the penetrating observation, with which these pillars of our profession have been universally acknowledged to be gifted?

How it can be involved I know not; I must nevertheless make my acknowledgments to Mr. Gibbon for his tenderness of my professional character. As the expression of it, however,

ever, comes rather in a questionable shape, I may be allowed to say,

Non tali auxilio nec defensoribus istis,
Tempus eget.

The text is in Virgil; Mr. Gibbon will probably know where to look for the commentary.

I am, Sir,

Your very obedient Servant,

Bedford,
Nov. 9, 1819.

G. D. YEATS.

An Account of a singular Case of Ischuria in a young Woman, which continued for more than three years; during which time, if her Urine was not drawn off with the Catheter, she frequently voided it by Vomiting, and for the last twenty Months, passed much Gravel by the Catheter, as well as by Vomiting, when the use of that Instrument was omitted, or unsuccessfully applied. By ISAAC SENTER, M.D.

LUCY FOSTER, aged 15 years, a fleshy, healthy-looking, well-proportioned young woman, was taken, June 1st, 1785, with a pain in the left hypochondrium, accompanied with cough, fever, oppression at the chest, and difficulty of breathing. Being in very poor circumstances, her friends neglected asking advice till about a fortnight from her seizure, when I was called to her assistance. I was informed by her mother that she became a woman at thirteen, and continued pretty regular in her menses till within five weeks of her present illness; and that from her seeing nothing during that period, she supposed her to have taken a bad cold, as she was very inattentive to her health, and had been obliged to do the duty of a servant maid. Her pulse was upwards of 100 in a minute, her tongue coated with that sort of fur which often accompanies a bad kind of chronic inflammation of the thoracic viscera. I took ten ounces of blood from her arm, gave her an emetic, and directed a blister to the affected side. The blood, when cool, heaved up its coagulable lymph, as is common in pneumonic inflammation; but the buff was tender, and serum did not separate, as is usual in cases of acute inflammation of the breast. Expectorant febrifuge mixtures, &c. were given her, and another blister applied to her side within a few days. These medicines produced an abatement of the symptoms, and in the course of three weeks I ceased to visit her. I, however, looked upon her disease to have a strong tendency to a consumption; and about the fourth week from my first visiting her, she vomited up a quantity of bloody pus of a very disagreeable kind, which, with the preceding symptoms,

symptoms, induced me to think a vomica had burst in her stomach; for during the whole of this illness, from my first seeing her, her stomach was so irritable that it was with difficulty food or medicine could be made to sit upon it; and she often vomited up the most simple barley drink. She had a suppression of urine for twenty-four hours, but did not get any aid from medicine, as nature relieved herself. She, however, became regular in her menses, and recovered so far in about two months as to return to her usual labor; and continued capable of doing her duty to the satisfaction of her employers till June following, 1786.

On the 3d of this month I was desired to visit her again, when I found all her old complaints (except the suppression of her menses) returned with greater severity than they appeared last year. She was now let blood, and treated in other respects as before, her distress continuing so great that I found it necessary to repeat the operation (drawing small quantities) several times, as nothing else appeared to afford her any considerable relief. Her tongue was covered with a yellowish coat in the middle, and a muslin color at the edges. Her pulse beat 120 strokes in a minute. The irritability of her stomach was so great, that it had become extremely difficult to give any article either of medicine or nourishment but what she vomited up immediately. The effervescent draughts, infusions of Columbo with spirits of sweet nitre and sweet vitriol, liq. anod. min. &c. were tried without any lasting effect. Opium gave the most permanent relief, and afforded her that refreshment from sleep which she could obtain by no other means. As I now looked upon her case to be of long continuance, and residing in a distant part of the town, I called but seldom, after the severity of her symptoms had subsided, which they did in about three weeks.

On the 2d of July she was seized with a total suppression of urine, without any perceptible cause, which continued five days, not being able to void a single drop; and notwithstanding her pain and distress were very great, she did not let her circumstances be fully known to her friends, for fear of having it drawn off with an instrument. The beginning of the sixth day she was taken with a vomiting, which lasted till she brought up nothing but water, which, she said, tasted in every respect like urine. As her vomiting continued, she found relief in the bottom of her belly from the swelling and great soreness she had felt for several days. She now thought herself much better, but her vomiting recurred the next day, as I was informed, and continued more or less every day till I saw her, which was on the 14th of the month.

As she had discharged from her stomach every thing she ate or drank from the time of her first vomiting till this, she did not suffer so much from the ischury which still continued, as she did before the first evacuation. I prevailed upon her to let me pass the catheter into the bladder, whence I drew about three pints of urine, clear, but high-colored. Her strength was very much exhausted, and she felt great heat and soreness throughout the abdominal viscera. A variety of medicines were prescribed, and every method pursued that could be thought of, to allay the extreme irritability of her stomach, and restore the natural action of her bladder.

For ten weeks successively she was incapable of retaining on her stomach either food or medicines, except opium: this was her only solace by day as well as by night. From this time to December she continued with very little abatement of her distress, or alteration of her circumstances; and, as she could lie in no other position, she was constantly supported in an arm chair, in a reclined posture, with pillows under her hips. Whenever I omitted to draw off her water once in thirty or thirty-six hours at farthest, she never failed to vomit it up. *To ascertain so extraordinary a fact beyond the possibility of a mistake on my part, or a deception on hers, I often visited her about the time I knew she must vomit, if the catheter was not introduced; and I examined her bladder, found it full, hard, and tender, and sat by her till the vomiting recurred, saved the water that she brought up this way, compared it with what I drew off, and found it the same in every respect.*

During the time her urine came off by vomiting, she suffered extreme anxiety, and always complained of great heat, smarting, and extreme thirst, and a sensation of inversion or turning up of something, (running, as she expressed it,) that appeared to tear her bowels. As the affair had become so lengthy, and my business was such that it was not in my power to attend upon her as often as her case required, I instructed the young gentlemen who lived with me in the use of the catheter, and they waited on her in my absence as often as they could conveniently.

In the month of January, 1787, from some cause unknown, she could not be relieved by the instrument, nor could she vomit up her urine for several days; when it passed off by the navel for three days successively; after which the catheter was used with the same effect as before. From this time to August following, there was so great a sameness in her complaints, that nothing occurred worth noticing. About the beginning of this month, a brick-colored gravel began to pass off through the catheter, and soon became so large
and

and plentiful, that neither urine or gravel could be completely evacuated by the instrument in its usual form. I had one made of a different construction, open at two of the sides for about half an inch, which answered my wishes. She continued to discharge gravel this way whenever her urine was drawn off, till the beginning of November, at which time she felt more distress than usual, whenever her urine came off by vomiting, and she soon observed a gritty substance in her mouth. When I was informed of this new phenomenon, I requested her to save the urine for my inspection the next time she vomited. I compared this with what I drew off, and found it contained the same kind of gravel as that which passed the catheter. I procured and saved several drachms of this gravel that came from her both by the instrument and by vomiting, and could observe no difference in the color or consistence of them.

From this period to the summer 1788, her complaints continued much the same. When her water was not drawn off, she always brought it up by vomiting, commonly attended with great pain in the head. During this summer, she twice passed a small quantity of urine through the urethra, in consequence of being frightened, once by thunder, and the second time by the falling of a window in her room. This served only to raise her spirits for a few days, with the expectation of her urine returning through its natural channel. Her case, however, continued the same in that respect, and grew every day more complicated in others. The hypogastrium became more tumid and tender, and her bladder appeared very much thickened and extremely sore even after it was evacuated; add to this, the apparent inequality of the surface of the bladder was so great, and the tumor shifting sometimes towards the right and at others to the left inguen, according as her body was moved, that I began strongly to suspect a stone.

Through the month of September, her urine could very rarely be drawn off; for, upon the introduction of the catheter, a spasm seized the urethra and neck of the bladder; and, though the instrument appeared to pass high up into the fundus of the bladder, not more than a gill could be drawn before it stopped entirely, with a sensation of something falling down against its cervix, which she was very confident was a stone. In the course of this month she vomited more sand than she had at any time before, and failed in strength and spirits so fast, that I was apprehensive she would not live the month out. Her urethra, bladder, and external genital parts, were so extremely sore, that, for some time, it
prevented

prevented my searching her for the stone in the manner I intended.

About the beginning of October, I was able to introduce the sound, when I readily met with a stone which appeared of a small size, and rather softer than urinary calculi commonly are. I repeated the examination a number of times, till I was perfectly satisfied that this was the case. She would readily have undergone the operation of lithotomy, but I told her no lasting advantage could be expected from it while her viscera continued in such a diseased state. During this month her urine could be drawn off but part of the time, and *she vomited it up for more than a week, without the possibility of any relief from the instrument, notwithstanding it was kept in the bladder sometimes during the whole night.* She had, at different seasons of the year, several ill-conditioned small abscesses on her arm-pits, and on other parts of her body, but they did not appear to benefit her general complaints. She also voided at different times, by vomiting, (after she had thrown up all her urine,) a bloody pus, of a very disagreeable appearance and coppery taste. As her case was so very uncommon, I at different periods of it requested the advice of most of the faculty of this town. She was visited by the late Dr. Fletcher, Drs. Olyphant and Mason; the last of these gentlemen frequently attended her, both with me and in my absence, repeatedly relieved her by the catheter, *and saw her vomit up both urine and gravel.* She was also visited transiently by Dr. Waterhouse of Cambridge, and several other physicians of eminence, who belonged out of the State.

During the remainder of the fall, and principal part of the winter ensuing, the same troublesome sensation of the falling down of a stone in the bladder upon the use of the catheter continued, and induced the most excruciating pain and misery imaginable. She was put into different positions when the catheter was introduced, and I gave the instrument various directions in the bladder, sometimes with success, at others without. Her bowels for the most part were much less constipated than could have been expected, considering the frequency of vomiting, her supine situation, and the little nourishment she was able to retain upon her stomach; and during the whole of her disease, till within three months of her death, the catamenia were irregular. Sometimes they appeared every fortnight, and at others she past the regular period for that evacuation two or three months without having any; but it did not appear to me that her disease was much influenced by either. She had by times a dry cough, with the return of the old pain in the side; but

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she never expectorated by coughing any kind of purulent matter that could induce me to suppose her lungs were considerably diseased. The bloody matter that she brought up always came away by vomiting, preceded by a more morbid than ordinary irritability of the stomach, soreness, and extreme anxiety.

Early in the spring 1789, her urine began to pass per anum, loaded with the same kind of gravel that had come away by the catheter. This gave her some respite with respect to her vomiting, though she continued to throw up more or less urine as well as gravel that very week. This new course of her water gave her a very troublesome tenesmus; but the stone in the bladder, as well as the pain and disagreeableness arising from the sensation of its descent, became daily less fatiguing. Her strength and spirits decayed fast, and the fever that she had before continually labored under, grew more completely hectic. After the 13th of May, her bladder never became so much distended with urine as it had been before, and both this and the gravel now generally past her once in twenty-four hours, either by vomiting or purging. She however introduced the catheter herself, and sometimes drew off her urine to the quantity of a gill. The secretion of urine, as well as the formation of calculi, evidently diminished in proportion to her loss of strength, and the increase of the diarrhoea. The menses entirely ceased. During the latter part of spring and summer, she became quite paralytic at times; the frequency of vomiting increased, and she had several convulsion fits after vomiting. She grew more and more emaciated; her convulsions returned more frequently; her fever was more putrid; she at last became lethargic; and on the 11th of August, death, which she had long and ardently wished for, put a period to a series of the most complicated and singular misery that I have ever seen since my acquaintance with disease.

Appearances on Dissection.—Thorax.—In this cavity there was nothing appeared unnatural, except a considerable adhesion of the right lobe of the lungs to the pleura.

Abdomen.—The omentum was principally wasted, but not more than is commonly the case with those who die tabid. It was however of a dark gangrenous color pretty generally. The stomach appeared very much changed from its natural color, and in a gangrenous state, containing a semi-purulent matter, of a foetid scent.

Liver and gall-bladder.—There were no preternatural adhesions of the former, nor gall-stones in the latter, and their color, &c. not unusual.

Intestines.—

Intestines.—In these there are no ruptures, either of their muscular coats, blood-vessels, or lymphatics, that we could discover. The villous coat was much destroyed, and the color of the intestines darker than is common, except the duodenum, which was very much discolored with the bile.

Kidneys and ureters.—In these there was no considerable deviation from a state of soundness; they were lax or flabby, but no rupture of any of their vessels, or any calculi discoverable.

Urinary bladder.—This was in its natural situation, not the least thickened, had no sand or gravel in it, nor did it adhere preternaturally to any of the circumjacent parts; and the muscular sphincter of its neck yielded readily to the introduction of the finger from the bladder into the urethra.

Uterus.—In its cavity was contained about a drachm of thick, darkish, foetid pus, but no other appearance of disease in its body.

Tubæ Fallopianæ were larger than common in virgins, and strung with several hydatids or vesiculæ; the size of a walnut, filled with a watery glutinous humor. Corpora fibriata had a gangrenous appearance.

Ovaria were enlarged to the size of a small hen's egg, and contained a considerable quantity of a clear limpid fluid immediately under the first coat.

COLLECTANEA MEDICA,

CONSISTING OF

ANÉCDOTES, FACTS, EXTRACTS, ILLUSTRATIONS,
QUERIES, SUGGESTIONS, &c.

RELATING TO THE

History or the Art of Medicine, and the Auxiliary Sciences.

Biographical Account of M. de Fourcroy. By THOMAS
THOMSON, M.D. F.R.S.

LITERARY men may be divided into three classes. Some make a great figure during their life-time; but death erases their names from the annals of science, and they sink into the grave and obscurity at once. Such were Dr. Mead and Sir John Hill. Some are little known during their life-time, and spend their days in obscurity and penury; but when death has once closed the scene, their reputation rises untarnished by envy, and unsullied by emulation, and flows

on like a mighty river, the broader, and deeper, and greater, the farther it advances. Such, in some respects, were Kepler and Scheele. Some are so unfortunate, through imprudence, or a perverse train of circumstances, neither to acquire reputation during their lives, nor after their death; while their more successful contemporaries, with less labor, and less merit, gather all the laurels which they had earned. It would be invidious to mention the names of any who unfortunately belong to this class; but they will readily occur to every one acquainted with the history of science. Every tyro in algebra is familiar with Cardan's rules for the solution of cubic equations, while the name of the real discoverer of these rules is scarcely known, except to mathematical antiquaries. M. de Fourcroy, the subject of this article, made so conspicuous a figure during his life-time, that it would by no means surprise us if he should finally take his place among that class of literary men whom we characterised in the first place: not that he wanted merit; for it is not so much merit, as a regard to distributive justice, which leads to the classification. Who will be hardy enough to affirm that Churchill wanted merit as a poet? During his short and rapid literary career, he appeared to wield the thunderbolts in his hand, and was an object of dread and adoration, like a kind of divinity. But where is his reputation now? It has sunk, since his death, as much below the true level, as it rose above it during his life-time. And this we believe will always be the case. Mankind will atone for the excessive adulation which they pay to a man during his life-time, by a corresponding negligence after his death.

Antoine François de Fourcroy, Comte of the French Empire, Counsellor of State, Commander of the Legion of Honour, Member of the Institute, and of most scientific societies in Europe, Professor of Chemistry at the Museum of Natural History, Professor of the Faculty of Medicine at Paris, and Teacher in the Polytechnic School, was born at Paris, on the 15th of June, 1755, and was the son of Jean Michel de Fourcroy and of Jeanne Laugier.

His family had long resided in the capital, and several of his ancestors had distinguished themselves at the bar. One of them, during the reign of Charles IX. was honored with the epithet of *fori decus*.

Antoine François de Fourcroy sprung from a branch of the family that had gradually sunk into poverty. His father exercised in Paris the trade of an apothecary, in consequence of a charge which he held in the house of the Duke of Orleans. The Corporation of Apothecaries having obtained the general suppression of all such charges, M. de Fourcroy, the father,

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was obliged to renounce his mode of livelihood ; and his son grew up in the midst of the poverty produced by the monopoly of the privileged bodies in Paris. He felt this situation the more keenly, because he possessed from nature an extreme sensibility of temper. When he lost his mother, at the age of seven years, he attempted to throw himself into her grave. The care of an elder sister preserved him with difficulty till he reached the age at which it was usual to be sent to the college. Here he was unlucky enough to meet with a brutal master, who conceived an aversion to him, and treated him with cruelty. The consequence was a dislike to study ; and he quitted the college at the age of 14, somewhat less informed than when he went to it.

His poverty now was such, that he was under the necessity of endeavoring to support himself by commencing writing-master. He had even some thoughts of going upon the stage ; but was prevented by the hisses bestowed upon a friend of his, who had unadvisedly entered upon that perilous career, and was treated in consequence without mercy by the audience. While uncertain what plan to follow, the advice of Viq. d'Azyr induced him to commence the study of medicine.

This great anatomist was an acquaintance of M. de Fourcroy, the father. Struck with the appearance of his son, and the courage with which he struggled with his bad fortune, he conceived an affection for him, and promised to direct his studies, and even to assist him during their progress. The study of medicine to a man in his situation was by no means an easy task. He was obliged to lodge in a garret, so low in the roof that he could only stand upright in the centre of the room. Beside him lodged a water-carrier, with a family of twelve children. Fourcroy acted as physician to this numerous family ; and in recompense was always supplied with abundance of water. He contrived to support himself by giving lessons to other students, by facilitating the researches of richer writers, and by some translations which he sold to a bookseller. For these he was only half paid ; but the conscientious bookseller offered, thirty years afterwards, to make up the deficiency, when his creditor was become Director General of Public Instruction.

Fourcroy studied with so much zeal and ardour that he soon became well acquainted with the subject of medicine. But this was not sufficient. It was necessary to get a doctor's degree ; and all the expenses, at that time, amounted to 250*l.* sterling. An old physician, Dr. Diest, had left funds to the faculty to give a gratuitous degree and license, once every two years, to the poor student who should best deserve them.

them. Fourcroy was the most conspicuous student at that time in Paris. He would therefore have reaped the benefit of this benevolent institution, had it not been for the unlucky situation in which he was placed. There happened to exist a quarrel between the faculty charged with the education of medical men and the granting of degrees, and a society recently established by government for the improvement of the medical art. This dispute had been carried to a great length, and had attracted the attention of all the frivolous and idle inhabitants of Paris. Viq. d'Azyr was secretary to the society, and of course one of its most active champions, and was in consequence particularly obnoxious to the Faculty of Medicine at Paris. Fourcroy was unluckily the acknowledged protégé of this eminent anatomist. This was sufficient to induce the Faculty of Medicine to refuse him a gratuitous degree. He would have been excluded in consequence from entering upon the career of a practitioner, had not the society, enraged at this treatment, and influenced by a violent party spirit, formed a subscription, and contributed the necessary expences.

It was no longer possible to refuse M. de Fourcroy the degree of Doctor, when he was thus enabled to pay for it. But above the simple degree of Doctor, there was a higher one, entitled *Docteur Regent*, which depended entirely upon the votes of the faculty. It was unanimously refused to M. de Fourcroy. This refusal put it out of his power afterwards to commence teacher in the medical school, and gave the medical faculty the melancholy satisfaction of not being able to enrol among their number the most celebrated professor in Paris. This violent and unjust conduct of the faculty of medicine made a deep impression in the mind of Fourcroy, and contributed not a little to the subsequent downfall of that powerful body.

Fourcroy being thus entitled to practise in Paris, his success depended entirely upon the reputation which he could contrive to establish. For this purpose he devoted himself to the sciences connected with medicine, as the shortest and most certain road by which he could reach his object. His first writings showed no predilection for any particular branch of science. He wrote upon chemistry, anatomy, and on natural history. He published an *Abridgment of the History of Insects*, and a *Description of the Bursa Mucosa of the Tendons*. This last piece seems to have given him the greatest celebrity: for in 1785 he was admitted, in consequence of it, into the Academy of Sciences as an anatomist; but the reputation of Bucquet, which at that time was very high, gradually directed his particular attention to chemistry,

chemistry, and he retained this predilection during the rest of his life.

Bucquet was at that time professor of chemistry in the medical school of Paris, and was then greatly celebrated and followed, on account of his eloquence and the elegance of his language. Fourcroy became in the first place his pupil, and soon after his particular friend. One day, when an unforeseen disease prevented him from lecturing as usual, he entreated M. de Fourcroy to supply his place. The young philosopher at first declined, and alleged his total ignorance of the method of addressing a popular audience. But, overcome by the persuasions of Bucquet, he at last consented; and in this his first essay, he spoke two hours without disorder or hesitation, and acquitted himself to the satisfaction of his whole audience. Bucquet soon after substituted him in his place, and it was in his laboratory and in his class-room that he first made himself acquainted with chemistry. He was enabled at the death of Bucquet, in consequence of an advantageous marriage which he had made, to purchase the apparatus and cabinet of his master; and although the Faculty of Medicine would not allow him to succeed to the chair of Bucquet, they could not prevent him from succeeding to his reputation.

There was a kind of college established in the King's Garden, which was at that time under the superintendence of Buffon, and Macquer was the professor of chemistry in this institution. On the death of this chemist, in 1784, Lavoisier stood candidate for the chair. But Buffon received more than a hundred letters in favor of Fourcroy; and the voice of the public was so loud in his favor, that he was appointed to the situation, in spite of the high reputation of his antagonist, and the superior interest that might be supposed to result from his fortune and his situation.

Fourcroy continued professor at the Jardin des Plantes during the remainder of his life, which lasted twenty-five years; and such was his eloquence, or so well was it fitted to the taste of the French nation, that his celebrity as a lecturer continued always upon the increase: so great also were the crowds, both of men and women, that flocked to hear him, that it was twice necessary to enlarge the size of the lecture-room. I had myself an opportunity of hearing him lecture two or three times, and must acknowledge that I found it difficult to account for the celebrity which he enjoyed. His style was precisely similar to that of his books, flowing and harmonious, but very diffuse, and destitute of precision; and his manner was that of a *petit maitre*, mixed with a good deal of pomposity, and an affectation of profundity.

fundity. There must be something, however, in such a manner, capable of attracting the generality of mankind; for I know a professor who possesses as much of it as is consistent with the British character, and who is far inferior to Fourcroy as a man of science; who, nevertheless, enjoys within his own sphere nearly the same degree of popularity that Fourcroy did in his.

We must now notice the political career which Fourcroy ran during the progress of the revolution. In a country where political changes were going on with so much rapidity, and where every description of men were successively had recourse to, it was not possible that a professor so much admired for his eloquence could escape observation. Accordingly, he was elected a member of the National Convention in the autumn of 1793. The National Convention, and France herself, were at that time in a state of abject slavery; and so sanguinary was the tyrant who ruled over that unhappy country, that it was almost equally dangerous for the members of the Convention to remain silent, or to take an active part in the business of that assembly. Fourcroy, notwithstanding his reputation for eloquence, and the love of eclat which appears all along to have been his domineering passion, had good sense enough to resist the temptation, and never opened his mouth in the Convention till after the death of Robespierre. This is the more to be wondered at, and is a greater proof of prudence, as it is well known that he took a keen part in favor of the revolution, and that he was a determined enemy to the old order of things, from which he had suffered so severely at his entrance into life.

At this period he had influence enough to save the life of some men of merit: among others, of Darcet, who did not know the obligation he lay under to him till long after. At last his own life was threatened, and his influence of course utterly annihilated.

During this unfortunate and disgraceful period, several of the most eminent literary characters of France were destroyed; among others, Lavoisier, and Fourcroy has been accused of contributing to the death of this illustrious philosopher, his former rival, and his master in chemistry. How far such an accusation is deserving of credit, I have no means of determining; but Cuvier, who was upon the spot, and in a situation which enabled him to investigate its truth or falsehood, acquits Fourcroy entirely of the charge, and declares that it was urged against him merely out of envy at his subsequent elevation. "If, in the rigorous researches which we have made," says Cuvier, in his *Eloge* of Fourcroy, "we had found the smallest proof of an atrocity so horrible,

no human power could have induced us to sully our mouths with his *Eloge*, or to have pronounced it within the walls of this temple, which ought to be no less sacred to honor than to genius.

Fourcroy began to acquire influence only after the 9th Thermidor, when the nation was wearied with destruction, and when efforts were making to restore those monuments of science, and those public institutions for education, which, during the wantonness and folly of the revolution, had been overturned and destroyed. Fourcroy was particularly active in this renovation, and it was to him chiefly that almost all the schools established in France for the education of youth are to be ascribed. The Convention had destroyed all the colleges, and universities, and academies, throughout France. The effects of this ridiculous abolition soon became visible. The army stood in need of surgeons and physicians, and there were none educated to supply the vacant places. Three new schools were founded for educating medical men. They were nobly endowed, and still continue connected with the University of Paris. The term *schools of medicine* was proscribed as too aristocratical. They were distinguished by the ridiculous appellation of *schools of health*. The *Polytechnic School* was next instituted, as a kind of preparation for the exercise of the military profession, where young men could be instructed in mathematics and natural philosophy, to make them fit for entering the schools of the artillery, of genius, and of the marine. The central schools was another institution for which France is indebted to the efforts of Fourcroy. The idea was good, though it has been very imperfectly put in execution. It was to establish a kind of university in every department, for which the young men were to be prepared by means of a sufficient number of inferior schools scattered through the department. But these inferior schools have never been either properly established or endowed; and even the central schools themselves have never been supplied with proper masters. Indeed it would have been impossible to have furnished such a number of masters at once. On that account an institution was established at Paris, under the name of *Normal School*, for the express purpose of educating a sufficient number of masters to supply the different central schools.

Fourcroy, either as member of the *Convention*, or of the *Council of Ancients*, took an active part in all these institutions, both as far as regarded the plan and the establishment. He was equally concerned in the establishment of the *Institute*, and of the *Museum d'Histoire Naturelle*. This last was endowed with the utmost liberality, and Fourcroy was one

of the first professors; as he was, also, in the School of Medicine, and the Polytechnic School. He was equally concerned in the restoration of the University, which constitutes the most splendid part of Bonaparte's reign, and the part which will be longest remembered with gratitude and applause.

The violent exertions which M. de Fourcroy made in the numerous situations which he filled, and the prodigious activity which he displayed, gradually undermined his constitution. He himself was sensible of his approaching death, and announced it to his friends as an event which would speedily take place. On the 16th of December, 1809, after signing some dispatches, he suddenly cried out *Je suis mort*, and dropt lifeless on the ground.

He was twice married: first to Mademoiselle Bettinger, by whom he had two children; a son, an officer in the artillery, who inherits his title; and a daughter, Madame Foucaud. He was married a second time to Madame Bellville, the widow of Vailly, by whom he had no family. He left but little fortune behind him; and two maiden sisters who lived with him, depended, for their support, upon his friend M. Vauquelin.

(To be continued.)

CRITICAL ANALYSIS

OF RECENT PUBLICATIONS

IN THE

DIFFERENT BRANCHES OF PHYSIC, SURGERY, AND
MEDICAL PHILOSOPHY.

Edinburgh Medical and Surgical Journal, No. XXXV.

- I. *Report on the State of Vaccination in certain Districts of India, and in the Isles of France and Bourbon.* By W. Scot, Surgeon.

THE successful progress of vaccination in India is well known to our readers, from the various reports on it from that country analysed in this Journal. Mr. Scot's report contains, not only evidence of the success of this practice in India, but a view of it in the Isles of France and Bourbon, where its efficacy has been equally conspicuous. The destruction by the small-pox in these islands, previous to the discovery or introduction of vaccination, was most extensive.

"The Isle of France contains about 6000 whites, 7000 free blacks and people of color, and from 60,000 to 70,000 slaves. In the latter class,

class, there are thirteen males to six females. The Isle of Bourbon has probably fewer whites, but is reckoned to contain many more slaves. The small-pox has generally appeared in both islands at the same periods, excepting in 1811, when it was confined to the Mauritius. In the year 1756, the small-pox first appeared as an epidemic at the Mauritius, and was extremely fatal; the contagion was kept up for a year, and it is computed, that two died of every five who were attacked by it. In 1771, it appeared a second time, and was no less formidable, so that the island was almost depopulated.

"In 1792, when the population had greatly increased, a third epidemic appeared, which, at the lowest computation I have seen, destroyed more than 26,000 people. None of the inhabitants can speak of it now without horror; and the year after, a law was enacted, condemning the captain or surgeons of any vessel to death, who should make a false declaration of the state of health of his crew, in respect to the small-pox. In August 1803, the *Ulysses*, a slave-ship from Mozambique, arrived at the Mauritius, having the small-pox amongst the slaves. She was sent back to the Seychelles, and the vaccine virus having by that time been carried from India to the island, the people were roused by the recollection of former calamities, and after a few preliminary experiments, immense numbers were vaccinated, but with very little care or attention. Perhaps not one case in a hundred was examined during the progress of the disease. I make this estimate from knowing that no note was kept by any surgeon of his inoculations, and from the difficulty, or oftener the impossibility, of seeing our patients, when our utmost efforts were bent on keeping a perfect register.

"In July, 1811, some cases of small-pox were brought from Madagascar, on board the captured French frigates, and the contagion was established on shore; yet, from that period till the end of November, at which time I left the island, between forty and fifty cases only had occurred; and I have lately been assured that the contagion has long since entirely ceased. On the 13th of November I report to the superintending surgeon on the island, that 'we have a melancholy proof of the carelessness with which vaccination has been hitherto practised, in the numbers attacked by small-pox; of about fifty cases of that disease, seven have been believed to be vaccinated.'

"Two months before the introduction of the small-pox, I found it necessary to warn the inhabitants, that, from every information I could gain of the previous practice, I had no doubt that great numbers who were supposed to be duly vaccinated, were still in reality exposed to variolous infection. I gave them a distinct account of the ordinary progress of the disease, and urged every person to have their children and slaves reinoculated, in all cases where the course of the vaccine had not been attentively examined. Great numbers were accordingly subjected to this precautionary measure of a second inoculation; but I regret that the documents I have by me do not enable me to state the result with precision, and, on this subject, I wish to avoid any assertion founded merely on memory.

"The exertions of the French surgeons were but little seconded by the people, who were most interested in their success. It is almost incredible, that a people, styling themselves polished and civilized, should evince such apathy, not only where the lives of their children, but their pecuniary interests in their slaves, were concerned. In a report of the 20th of August, 1811, to the superintending surgeon, I mention this indifference of the people, even after the small-pox contagion had been introduced. 'Instead of punctually assembling the subjects for inoculation, at a convenient time and place for the surgeon, he has often the task of searching the habitations himself, and of coming at various times to catch the opportunity of finding them unemployed. The inoculation once performed, they pay no attention to the necessity of frequent inspection during the progress of the disease; they content themselves with thinking, when they think at all, that if the pustule has been genuine, it will leave a mark upon the arm; a most fallacious mode of judging, since other kinds of matter inoculated may do the same, independent of the frequency of marks made by tattooing.

"The practice appears to have been so slovenly, that were a thousand cases to occur of small-pox after alleged vaccination, my faith in its efficacy would not be shaken."

"Yet, under all these disadvantageous circumstances, the astonishing contrast already stated, between the progress of the contagion of small-pox in 1792 and 1811, at the Isle of France, must carry conviction to the most sceptical mind."

The efficacy of the dry crust, as suggested and practised by Mr. Bryce, receives the full sanction of Mr. Scot; and the evidence he produces goes very far to establish the practice.

"Mr. Bryce's directions for the employment of the dry crust to propagate the vaccine infection, I applied to practice, perhaps more extensively than most other practitioners. Having found it nearly or fully as successful as the recent virus, I resorted to it, on account of its great conveniency. I shall record one instance sufficiently conclusive on this head. During the existence of small-pox at the Isle of France, in September 1811, some slave-ships were seized at Port Louis, by one of our frigates. The slaves were landed, to the number of 359, and put into one large building; 39 of them had evidently had the small-pox. As no time was to be lost in a case of such urgent danger, I immediately inoculated 320 of them, with the matter of crust dissolved in water, there not being sufficient recent virus to be had for this purpose. I had previously taken measures to have always at hand a large supply of these crusts, to send to distant quarters, or to meet any emergency. Of these 320 inoculations, 174 took effect, and only 53 of the 146 failures took the disease on a second inoculation, which was still performed principally, though not entirely with the matter of crust. The other failures were tried again and again with recent virus; 84 resisted every attempt, and 9 were sent to hospital, of whom I cannot at this time give any account."

Much

Much is due to Mr. Scot for the exertions he has made to extend the blessings of Jenner's discovery to the Mauritius.

II. Case of Periodical Day-Blindness. By JOHN ISBELL, Surgeon.

This case of periodical blindness is concluded to be syphilitic, for it was cured by mercurial ointment rubbed on the thighs. The peculiarities of it are described in the following passage.

"Mr. ——— complained of pains in his limbs, with occasional loss of voluntary motion and sensation in the left arm and leg; the pains being most severe during the night, and felt more particularly in the central parts of the bones. The joints were also affected, but in a much less degree. Daily, between the hours of eleven and two, a total loss of sight came on, preceded by a severe pain of the forehead, but seated principally over the orbits. The attack was generally of half or a quarter of an hour's duration, sometimes returning three or four times within the said hours. He was, besides, now and then deprived of speech, but which seldom continued more than a minute or two. His hearing always remained perfect. His body was much emaciated, which had been gradually increasing for the last three years."

III. On Oil of Turpentine, &c. in Epilepsy. By EDWARD PERCIVAL, M.D.

In three cases of this intractable disease, in the Hospital for Incurables near Dublin, the oil of turpentine was employed in pretty considerable quantity, with the effect of mitigating the epileptic paroxysm, but without curing the disease. Though the turpentine failed as to an absolute cure, it certainly manifested considerable powers in epilepsy: it was given without producing any distressing symptoms on the stomach and bowels; on the contrary, it proved gratefully cordial, strengthening the powers of digestion, and gently promoting intestinal and renal action. Dr. Percival observes, that its only apparently specific action was on the uterine system, it being to appearance a certain emmenagogue. The shortest of the three cases we shall cite as further explanatory of the action of a new remedy, at least, of its novel application.

"Margaret Harrison, æt. 25, of middle stature, and plethoric habit, became subject to epilepsy eight years ago, from a sudden alarm. The paroxysms of her disorder occurred chiefly at night, when she had usually two or three mild fits, each enduring about a quarter of an hour. She was admitted to the Hospital for Incurables in the summer of 1812. During the four preceding years she had experienced no menstrual discharge. Her general health and strength

have

have appeared good, her appetite rather voracious, but her intellect has been obtused, approaching to fatuity.

" July 15, 1812.—I directed for her pills of myrrh, steel, and aloes, which, in the course of a few days, induced a return of the catamenia. Her understanding consequently improved, her conduct became more regular and amenable, yet her epileptic fits recurred without any mitigation. She commenced the terebinthinate mixture on the 4th of November, in the proportion of three drachms of ol. terebinth. to a pint of mint-water, which had an immediate effect in abating the frequency and duration of her fits. She became more lively, and for the first time replied to a query of mine, by saying that the medicine had done her great service.

" Until the 4th of December her fits of epilepsy had nearly disappeared, when, without any manifest cause, they began to recur in a mitigated and less frequent degree than formerly. I directed for her a mixture, with one ounce of oil of turpentine in a pint of mint-water, of which she took two table spoonfuls every fourth hour, with immediate and decided benefit. On the 29th of the same month it was reported to me that she had relapsed to her former epileptic habits; though her fits were somewhat less frequent, and certainly more gentle than before the use of the terebinthinate mixture.

" On the 31st of January, 1813, I directed a decoction of two drachms of the dried leaves of foxglove to be administered in divided doses, with as little interval as possible. The effect of this medicine was extreme nausea, vomiting, and subsequently purging, which continued for the space of eight or ten hours. The fits of epilepsy, however, began shortly to recur as before, with less violence than previous to the use of turpentine, but apparently unmitigated by the administration of digitalis. Her fatuity continued without interval or abatement."

IV. *Case of Injury to the Fetus, without the Mother being affected.* By WILLIAM ENGLISH, Surgeon.

The facts in this occurrence we will present to our readers, and leave them to judge for themselves.

" A lady in my neighbourhood, a month before being delivered of her second child, was standing upon a pair of steps, reaching something off the top of a chest of drawers, when she slipped, and fell backwards. In her fall, her back, about the middle of the sacrum, came in contact with the key of the room door, which was in the lock, and broke the key in two. She lay for some time insensible, but, when she recovered, was surprised to find that she had power to get up, and fright seemed to be the only suffering she had to complain of from so very serious an accident, excepting a slight soreness and stiffness of the whole back and neck, which continued until, and for a few days after, the child was born.

" There was nothing untoward happened during labour, which was of the class called lingering; but the child being large, may account for that circumstance. Soon after birth, a considerable cavity was observed in the child's back, situated about the middle of the sacrum.

sacrum. There had evidently been an extensive abscess, which was barely cicatrized at the bottom, and the skin and cellular substance was thickened and puckered all round the outer edge. For five or six days after the infant was born, there was a slight oozing of this gummy matter from the sore, caused, I believe, by the friction of the clothes, but it soon healed firmly, and the child continues well. I had some fears that this case would end in spina bifida; however, the injury happily extended no further."

V. On the good Effects of Cold Applications to Ulcers.
By P. JOHNSON, Surgeon,

Mr. Johnson relates one case only, but speaks of his success as very general. This case being short, we shall give in his own words.

"On having joined my ship, about five weeks since, I found one of her company with five deep and high-edged ulcers, situated between two and seven inches above the patella, which affected him for many months; some of them healing, while others were suppurating. My predecessor had used every means that he could devise for their cure, with very little good effect. The man had no constitutional appearances of scrofula, though these ulcers most strongly appeared to partake of that disease. The discharge was ill-conditioned; the ulcers communicated often with each other, as easily ascertained on pressure, or by the probe. Having seen no written document of my predecessor's treatment, I immediately began with poultices of oatmeal, moistened with salt water, to be changed whenever they became dry, with a little lint underneath. From the 21st of January, I used the salt water, by applying a cloth and bandage continually kept wet, the water being every hour changed for more drawn up along-side, up to this day (Feb. 18th), a period of twenty-nine days, when the ulcers are healed, and the man capable of doing his duty. I have made use of no dressing between the cloth and sores. The cloths were rinsed three or four times a-day, consequently very clean."

Very few surgeons are unacquainted with Baynton's admirable method of curing ulcerated legs, though there are some, even in London, who either do not know, or do not feel its value. The constant application of cold water in his method, we have often thought to be serviceable, principally by carrying off the accumulated caloric, and keeping the limb in an under temperature. We should be glad to have this ascertained, and to know what is to be attributed to pressure, what to the absorption of an aqueous fluid, what to keeping the ulcer clean, and what to the abstraction of heat?

VI. On the external Application of Belladonna to the Eye, for the purpose of dilating the Pupil. By T. PAGET, Surgeon.

Mr. Paget, in this short paper, establishes his right to the
5 first

first use of belladonna, in this country, for the purpose of dilating the pupil of the eye.

VII. *Observations on a Species of Vaginal Hernia occurring in Labour; read at a Meeting of the Medical Society of Liverpool.* By T. CHRISTIAN, Surgeon.

This paper describes a case which sometimes occurs in the practice of midwifery, and becomes important or hazardous only by being misunderstood. The bladder gets disturbed from its natural scite, and descends before the membranes in labour into the pelvis, obstructing the progress of the fœtus. The obvious remedy is emptying the bladder by the catheter.

VIII. *The Effects of cold Water given internally, or applied externally, in four Cases of Abdominal Inflammation.* By T. SMITH, Surgeon, &c.

We have long considered the depletion of heat, in all cases where temperature is much raised, to be one of the most efficacious remedies, especially in all cases of inflammation. Since this principle was urged in our Half-yearly Reports of the Progress of Medical Science, we have observed cold to have been applied with great boldness, and in some cases where heretofore the employment of heat had been thought to be beneficial.

The four cases here related are strongly in point. The 3d of these being short, and one of those in which the application of cold has been considered as peculiarly dangerous, we shall cite, as a specimen of Mr. Smith's practice.

" August 20th, 1812, I was called to the wife of Hugh Ross, carpenter, Dunaughton. She had been delivered of a child on the 15th, and on the 17th was seized with cold shivering, and pain in the belly and head, the lochia and secretion of milk being greatly diminished. I found her in the following condition:—respiration quick, oppressed, and aspiratory; pulse 150, extremely feeble, and at times intermitting. She complained of pain in her belly and forehead; her abdomen much tumefied, hot, and so tender that she could hardly bear it to be touched. Her attendants said that she was at times delirious, and that she had a second shivering of cold a short time before I arrived. She vomits frequently, and the fluid vomited is very acid; tongue dry and brown. She does not complain of thirst, but drinks with avidity when it is offered her. Hands and feet cold; lochia suppressed; mammæ flaccid. She is said to have had one or two loose stools to-day of a frothy appearance. The chalk mixture was given her, and cloths wet with cold water were desired to be applied over the whole abdomen.

" 21st —I saw her early this day. The cold cloths have been applied frequently, with much relief to the feelings of the patient. She has

has had two or three loose stools; vomiting has ceased; appears less debilitated to-day; abdomen still tumid, hot, and tender; pulse 135:

"I now renewed the cold applications, which had been abandoned for some hours, applying cloths wet with cold water in which salt was dissolved, and renewing them as soon as they became hot. This practice was continued for about an hour, after which, upon examining the pulse, I found it 108 in the minute, and full. The patient expressed no uneasiness from the cold applications; on the contrary, she said they removed that sense of heat internally, which she had felt most distressing; and I observed, that after the cold water had been applied some time, the tenderness of the abdomen became much less, so that at length she could bear it to be firmly pressed without experiencing almost any pain.

"23d.—By message, I was informed to-day that the looseness continued with the effect of weakening her extremely, and that she had considerable cough and pain in the belly, aggravated by cold drinks, which she had taken by my directions. I sent some chalk powders, with orders to give one after every loose stool; and desired her drinks to be made warm.

"28th.—I was called to visit her to day. She had been much easier, though very weak since last report, till yesterday evening, when she was seized with a return of pain in the abdomen; pulse 128; tongue foul; thirst; cough; no stools.

"*Applicetur abdomini emplastr. mag. vesicator. et capiat omnibihorio, donec exoneretur alvus, Pulv. rhei, Pulv. glycyrrh. aa. gr. v. M.*

"This patient residing at a considerable distance from me, I did not see her again till about three weeks after the date of the last report, when, upon calling, I found her on foot, with no complaint except occasional pains in the abdomen, which appeared to arise from costive bowels. She was now nursing her child, and had abundance of milk, By the occasional use of the *pil. rhei comp.* she was soon liberated from the pains, and now enjoys a good state of health."

IX. Case of *Hæmatemesis*. By W. COOKE, Surgeon.

This is a minute diary of a case of some interest. The discharges of blood by vomiting, and per anum, were very large; and at length the patient sunk under them. Examination, *post mortem*, does not seem to have elucidated this case much: as our readers may possibly think differently, we insert it.

"The omentum and external surface of the stomach and duodenum were natural, except that the fat had an unusual yellow appearance. The jejunum, ilium, and colon, had a dark aspect, apparently in consequence of matter contained in them, by which they were much distended.

"The liver was very considerably enlarged, extending into the left hypochondrium, of a reddish color, and scirrhus throughout; the gall bladder was distended, the coats thickened, and the bile apparently black, but, in dilution with water, became yellowish green.

"The spleen was enlarged to double its natural size, resembling in firmness and color healthy liver.

"When the stomach was opened, it was found to contain only the sago taken a few hours before death. The villous coat seemed natural, except near the cardiac orifice, where there was a very circumscribed appearance of inflammation, and a more extensive one of ecchymosis. On the membrane of the œsophagus were numerous petechiæ. The duodenum contained thick yellowish matter. In the jejunum and ilium was a large quantity of dark matter, which in some parts was mixed with blood, and resembled black currant jelly. The colon contained a quantity of black offensive fæces.

"The villous coat of the intestines looked natural except in the colon, where it had a deep red color, not from increased vascularity, but ecchymosis.

"The pelvis of the left kidney contained some pus. The bladder was natural. The urine (of which there was about half a pint), had a sediment of thick matter, probably from the left kidney.

"The blood in the mesenteric veins was so hard as to give them the feel and appearance of injected vessels. The lungs were of a healthy color, the left a little hardened; and some yellow lymph was deposited beneath the pleura pulmonalis.

"The cavity of the chest, and the pericardium, contained more fluid than natural to them.

"On cutting into the lungs, the cells appeared full of a *sero-mucous* fluid, which had given to the left its unnatural solidity.

"The heart and vessels were natural."

X. *Pathological and Practical Observations.*

This paper being only in part published, we postpone our account of it, until the whole is before us.

XI. *Severe Affection of the Stomach, ascribed to the presence in it of an Animal of the Lacerta tribe.* By JOHN SPENCE, M.D.

This is one of those extraordinary occurrences which require most positive demonstrative evidence, to give it currency. A stout country girl, 21 years of age, has serious derangement of the functions of the stomach and intestines for several days. On the 17th of December, in the night-time, after having taken some strong doses of calomel, and a large solution of neutral salts, she passed a reptile of the *Lacerta* species. This, however, Dr. Spence did not see, but gives the account from an old woman and the girl, who did both of them see it. Dr. Spence says,

"I was vexed, and much disappointed, at not being able to procure the animal alive or dead; for, although I can have no doubt of the fact myself, yet neither my testimony, nor that of the people themselves, will be sufficient to satisfy the incredulity of others. I, however, made such inquiries, that there could be no deception. When at stool, she had unusual pain in the rectum, and afterwards

she thought she perceived something moving in the pot. After examining with a stick, it leaped out with a bound, and ran very nimbly under the drawers, which put both her and her mother, who was in bed in the room, into great fright and consternation. This they saw by the light of the fire. She next lighted a candle, and, in looking under the drawers, was still more frightened, when she saw the animal with staring clear eyes. By the intreaties of her mother, who was not able to get out of bed herself, and was afraid it should do mischief, she laid hold of it when it turned round, and put it in the fire, and held it down with the poker till it was consumed. It squeaked with a shrill noise, and attempted to get out when first put in the fire.

"The size of the animal, as she described it by comparison with her finger, was between four and five inches long, and considerably thicker than the finger; it had a bluff nose, like the end of the finger, with a considerable mouth and bright staring eyes; the back, of a mahogany color, with a number of small white bright spots; had four feet with claws, not very long; and a short thick flattened tail, about an inch long. Did not take notice of the belly."

Though Dr. Spence believes this relation himself, he justly observes the evidence will not be sufficient to satisfy the incredulity of others. We are among the incredulous, and are much more disposed to believe this lizard to have been only in the pot, and not in the girl's bowels.

XII. *An Account of some Cases of Puerperal Fever, with their Treatment.* By T. SUTTON, M.D.

Though there may be some doubt whether these cases may have been what every practitioner would call puerperal fever, yet there can be no hesitation as to their hazardous nature, and their being connected with local inflammation. The application of cold to the abdominal parietes was most evidently beneficial.

XIII. *Case of Scirrhus in the Intestines, arising from Hairs remaining in the Canal.* By W. G. BURRELL, M.D.

After a variety of dyspeptic symptoms, constipation, and irregular action in the intestinal canal, the patient, a soldier 35 years of age, apparently worn down by irritation, expired in May 1812. The examination of the body after death, was supposed to ascertain the cause of the morbid actions which had so long afflicted the patient.

"On laying open the abdomen, the stomach was found much thickened throughout its whole substance, and the pylorus very much contracted, which contraction continued down the duodenum. Through all the intestines this thickening and gristly appearance was apparent. The colon was prodigiously enlarged in its calibre until where it forms its sigmoid flexion. At that point there were three distinct holes ulcerated through the coats of the intestines, and forming a communication with the abdominal cavity.

" Beyond the sigmoid flexion the intestine was contracted in its diameter, so as hardly to admit the little finger to pass downwards.

" On cutting open the pylorus and small intestines, the internal coats were found to be covered with a soft substance, which resembled size. The internal coats of the colon were of a dark color, and in general were ulcerated completely, and were hanging in shreds. The color of the colon was of a dark lurid red. At the sigmoid flexure there was much contraction, and the thickening was so great on one side, and the valve found so considerable, as hardly to admit a common bougie through it.

" The portion forming the sigmoid flexure was cut out; and, on laying it open, and removing some hardened portions of fæces, five or six hog's bristles were seen distinctly crossing each other in different directions, and were partially invested in the villous coat, which had grown over them, and had retained them in the different positions in which they were placed; and so firmly were they kept down by those partial coverings, that it required some force to draw them out. The mesenteric glands were of a cartilaginous appearance; the liver was suffused with blood, and the gall-bladder full of bile.

" The spleen was very small, and compressed into an oblong shape, probably arising from the pressure of the colon when distended with feculent matter.

" This man had formerly been a shoemaker. There was no certainty at what period he swallowed those hairs; but from the derangement which always existed in his bowels, and the pain referred to the situation of the sigmoid flexure, little doubt can be entertained but that these hairs were the cause of all his complaints, and ultimately of his death."

XIV. *Account of the second Watch of the reputed Fasting Woman.* By B. GRANGER, Surgeon, &c.

Mr. Granger, who had for a long period attended to the case of Ann Moore, gives here a detail of occurrences during the investigation, which ended in the detection of this woman's imposition.

XV. *Observations on Brain Fever.* By S. B. PEARSON, M.D.

This is a reprint of a small pamphlet published by Dr. Pearson, on this fever. Some further remarks on this disease are added by Dr. Pearson, corroborative of his practice, and directions for the treatment, founded on principle and supported by experience.

XVI. *A Mode of preventing the shortening of the Limb, in conducting the Cure of the broken Femur.*

This projector proposes to suspend the nates in such a manner that their weight may keep the fractured thigh constantly on the stretch. How far a patient with a fractured femur can bear this, experiment must determine.

MEDICAL,

MEDICAL AND PHILOSOPHICAL INTELLIGENCE.

IMPERIAL INSTITUTE OF FRANCE.

Transactions of the Imperial Institute of France for 1812.

SPALLANZANI, in a very celebrated work, having applied the gastric juice out of the stomach to every kind of food, affirmed that it produced, when assisted by heat, effects nearly similar to those produced in the stomach itself. This philosopher went so far as to ascribe to this gastric juice, thus separated, the property of stopping putrefaction. He drew this conclusion from his observations, which has been tacitly adopted by most physiologists, that the gastric juice produces its effects in consequence of its peculiar nature, of its composition, and affinities.

M. de Montegre, Doctor of Medicine, having the power of throwing up, without inconvenience, what he has in his stomach, has thought of employing this power in order to determine the different points of the received doctrine respecting digestion. When he throws up the contents of his stomach while fasting, he obtains a notable quantity of a liquid which he considers as true gastric juice, and which he examined with respect to its chemical properties as well as its action on the food.

He found this liquid resemble saliva; but its action appeared to him very different from the statement of Spallanzani. When exposed to a temperature similar to that of the human body, in phials placed under the arm-pit, it putrefied exactly like saliva. It did not stop the course of putrefaction in other substances, except when it was acid; and by adding a little vinegar to saliva it was made to possess the same property. This acidity is not essential; and when M. de Montegre swallowed enough of magnesia to absorb it, the digestion went on as well as usual. Acidity appeared again in a little time: even when M. de Montegre mixed the food which he swallowed with magnesia, it became acid after a sufficient time.

These experiments, repeated a great number of times, and with all the requisite precautions, have induced the author to conclude that the gastric juice does not differ from saliva, that it cannot stop putrefaction, nor produce digestion independent of the vital action of the stomach; and that the acidity which appears, and which the food evolves during digestion, is an effect of the action of the stomach.

It is much to be wished that M. de Montegre would continue his researches, and make them also upon those animals that Spallanzani employed, that we may determine what to think of a doctrine which has for a considerable time been generally embraced.

M. de Blainville, Joint Professor to the Faculty of Sciences of Paris, has described at full length the forms of articulation of the fore-arm and arm in different animals, and determined the motions which each of these forms makes necessary, chiefly with regard to the greater or smaller facility of rotation. This dissertation, on a point of importance

portance relative to the mechanism of animals, is interesting also as far as regards their classification; for the degree of rotation of the fore-arm having considerable influence on the address of the animals, ought to be considered, as far as regards the degrees of perfection, and of course influences their natural affinities.

The same anatomist has presented a memoir on the form of the sternum in birds. As this bone, or rather this great bony surface, resulting (as M. Geoffroy has shown) from the union of five different bones, gives origin to the principal muscles of the bird, the more solid and extended it is, the more solid a point of support does it furnish to these muscles, and the more ought it to contribute to render the flight powerful. It ought, therefore, to have an influence over the whole economy of the bird, and give useful indications respecting the classification of these animals. M. de Blainville draws his indications from the membranous spaces, more or less extended, which supply the place of bone in a part of the sternum. He adds the consideration of the fork, and of some organs connected with it, and in most cases finds a great agreement between the disposition of these parts and the natural families. However, there exist exceptions so manifest, that we cannot entirely confide in this new way of classification.

M. Marcel de Serres, Professor to the Faculty of Sciences of Montpellier, has drawn up a laborious work on the anatomy of insects, and particularly on their intestinal canal, which he has described with much detail in a great number of species. His object was to determine the functions peculiar to the different parts of the canal and its appendages: and, besides his dissections, he has made ingenious experiments on living individuals. Colored liquors injected into the cavity of the peritonæum were absorbed by long slender vessels, which always adhere to some part of the intestinal canal: hence he conceives that the use of these vessels is to secrete from the common mass of humors digestive liquors, and to throw them into the canal. An attentive examination of certain sacks, which in some genera have been considered as stomachs, in others as cæcums, and the certainty acquired that the food does not enter there, but on the contrary that they are found full of bilious liquor, has induced M. de Serres to conclude that they are reservoirs of that humor.

He deprives the grasshoppers, and the analogous genera, of the quality of ruminating animals, which had been ascribed to them, and he has convinced himself that these animals do not bring the food back to the mouth; but that they throw out only in certain circumstances this biliary juice, of which they have so great a quantity. This memoir contains many other curious observations on the form of the intestinal canal, the proportions of its parts, and their relation to the disposition of insects.

M. Dutrochet, physician at Chateau-Renaud, department of the Indre, has made a curious observation on the gestation of the viper. He assures us that the young vipers have their umbilical vessels distributed not only on the yoke of the egg, in which they are at first enclosed, but that a part of these vessels is distributed likewise on the

the internal surface of the oviducts, and forms a net which may be considered as a real placenta. The vipers in that case would participate in the mode of nutrition peculiar to the mammalia, and in that hitherto conceived to belong exclusively to the whole class of oviparous animals.

Medicine and Surgery.—After twelve years of experiments, made in every civilized country, since the discovery of vaccination, the Class conceived that it would be useful to collect the result of the observations on an object so important to humanity. Another motive rendered this undertaking necessary: objections and doubts had been raised by well-informed men, whose testimony was calculated to influence public opinion. It has even been questioned, whether small-pox inoculation, considered as a preservative, and in some cases as a remedy for various diseases, was not preferable to vaccination, or at least entitled to be preserved as well as it.

MM. Berthollet, Percy, and Hallé, commissioners, undertook the necessary researches to satisfy the intention of the Society; and presented, by means of M. Hallé, a long report, which the Class ordered to be printed. They bring the different points of discussion to six principal questions. Under these different heads they unite, as far as possible, every thing that has been accurately ascertained respecting the effects of vaccination in Europe, and in the countries where Europeans have been able to introduce vaccination.

They have collected a great many facts, observed particularly in France, England, Italy, India, and America, and observed in individuals of all classes, constitution, mode of life, habits, and manners, exceedingly different from each other. On the other hand, they endeavor to estimate the value of the principal facts upon which have been founded the most plausible objections, which they neither attempt to elude nor conceal. Thus, by comparing together the observations, they have been led to the conclusions with which they terminate their report: namely—

That vaccination does not introduce into the body a matter capable of producing a remarkable disturbance, and which requires to be expelled by a movement similar to that which results from inoculation: that the eruptions which sometimes appeared at first were not owing to the cow-pox matter; but to other circumstances, in the midst of which these vaccinations were performed:

That the unfortunate results which sometimes occurred were owing to causes altogether foreign, which made their appearance during the course of vaccination, and owing entirely to the state of the patients:

That the disorders following vaccination, when not owing to pre-existing diseases, have been very particular cases, depending upon circumstances peculiar to individuals; and that their number bearing no proportion to the immense number of observations exempt from accidents of any kind, no general consequence can be drawn from them:

That the unfortunate results, even supposing them incontestible, are more than compensated by the numerous instances of chronic and

and obstinate diseases which have been completely removed by vaccination; examples which, when compared with similar effects from inoculation, especially if we take into consideration the greater danger of inoculation, leave the superiority greatly on the side of vaccination:

Finally, that the preservative virtue of vaccination, when the virus has been properly taken, and the pox has proceeded properly, is fully as great as that of small-pox inoculation; while it possesses the immense advantage of circumscribing small-pox epidemics, and affords reasonable hopes of finally annihilating this dreadful scourge of humanity.

- M. Portal has published a new edition of his treatise on asphyxias, a work printed and circulated by order of government, for the instruction of the people, and which has probably saved the lives of thousands of citizens, since it has been circulated in France, and in all the rest of Europe, by the numerous translations that have been made of it.

M. Dumas, correspondent and dean of the Faculty of Medicine at Montpellier, has published a considerable work, entitled *General Doctrines of Chronical Diseases*, in which he considers this important subject in the most general point of view. Not confining himself to the external forms of these diseases, he ascends to the principles of their phenomena, determining by analysis the simple affections of which they are composed, and which may be considered as their elements. An accurate comparison of acute and chronic diseases induces him to conclude that there is no constant character which separates these two classes of diseases. In his account of chronic diseases, he shows that the want of nutrition and emaciation are produced more speedily by diseases connected with respiration than with the organs of digestion. He shows the constant relation between certain external forms, and a disposition to peculiar chronic diseases. Hence he deduces the character of the physiognomy peculiar to each.

The study of the revolutions natural to these diseases has made him perceive a period within which it is still possible to prevent their formation: different kinds of crises which succeed it, and what may render these crises advantageous or injurious: the different changes of acute into chronic diseases, and *vice versâ*, and the cause of these alternations.

The determination of the simple affections of which these diseases are composed, or of their pathological elements, appeared to him of the greatest importance; since it furnishes us, in some measure, with the means of simplifying them, by attacking these elements one after another, beginning with the most powerful. This fundamental point of view has enabled him to explain their formation, and to determine in a solid manner the method of treating them; but for this purpose it was necessary to draw an accurate line between the essential elementary affections and the symptomatic.

Thus he has risen by degrees to the general phenomena, and has been able to deduce them from a small number of primitive affections.

His

His theory of the formation of chronic diseases reduces itself to the relations of the elementary affections to each other, and to the system of organs which they occupy.

M. Dumas treats, in a manner which he considers as new, every thing that regards the general disposition to chronic diseases. He establishes a difference between the constitution and the temperament, which are sometimes opposed to each other; and this opposition is the most direct cause of a tendency to chronic diseases. He estimates the influence of time of life by the relation between the elementary affections, from which results a disposition at every age to different kinds of diseases, modifications in the diseases common to each age, and changes advantageous or hurtful during the progress of each disease. He treats of the passions after analogous views. Each of them may be decomposed into a certain number of simple affections, which metaphysics knows and enumerates.

Finally, M. Dumas arrives at his last part, which is that of the treatment. He shows the justice of his doctrine, by making it appear that all the approved methods of treatment are easily reducible to the principles which he has established. He finishes with some interesting observations on hereditary and on incurable diseases.

In an appendix, M. Dumas gives several examples of the manner in which he thinks the particular and detailed history of the elementary affections may be drawn up. A second work, which he promises, will establish and explain, by examples drawn from his practice, every thing difficult and abstract which this general doctrine contains.

Society for Relief of Widows and Orphans of Medical Men in London and its Vicinity.—On Friday, the 29th of October, the twenty-fifth Anniversary Festival of this Society was celebrated at the City of London Tavern, Bishopsgate-street.

The royal patron, his Royal Highness the Duke of Kent, presided; and from the lively interest he took in the concerns of the Society, proved himself more than merely a *nominal* patron to this useful institution.

His Royal Highness took a most accurate view of the Society since its first establishment, and recounted the relief that had been afforded to the widows and orphans down to the present time.

He was happy, he said, to be able to report, that no application from any family whose claim to relief could be by any means substantiated, agreeably to the laws of the Society, had been unattended to; and that those who were now pensioners on the establishment, were satisfied with the sums awarded to them, and grateful to the directors for their liberality.

His Royal Highness at the same time could not help expressing his regret, on finding, by inspection of the lists of physicians, surgeons, and apothecaries, resident in and near the metropolis, that not more than one third of the professors of the different branches of the medical science, were enrolled among the members of an institution whose object was to afford comfort and relief to the widows and children of the less fortunate members of the profession; and expressed a hope that the time would come when it would be considered

a disgrace to each regular member of the medical profession, *not* to belong to this Society.

The anniversary dinners of this Society being more calculated for bringing the members of the profession and their friends together to enjoy social conviviality, than for the purpose of soliciting donations, it is not usual to hand a plate about after dinner, nor to solicit contributions from the company present. Whatever donations are given, are unsolicited; and at this meeting they amounted to a considerable sum.

One hundred guineas were handed to the treasurer, being the gift of Sir Frederic Baker; and Sir Henry Halford presented the Society with fifty guineas. Other donations of minor consideration were presented by several of the gentlemen present; and Dr. Lettsom announced a bequest of five hundred pounds to the Society from the late Dr. Anthony Fothergill, of Bath. Several new members were proposed, and the company broke up at a late hour, highly pleased with the transactions of the day.

At the last audit, September 15th, the state of the fund was as follows:—three per cent consols, 20,400*l.*; navy five per cents, 200*l.*

Deaths by Small-pox, from the Weekly Bills.

Aug. 10,	10	Oct. 5,	16
17,	17	12,	13
24,	10	19,	16
31,	16	26,	23
Sept. 7,	4	Nov. 2,	25
14,	11	9,	16
21,	18	16,	17
28,	12		

Mr. Calcraft presented a petition, on Friday the 19th of November, to the Honorable the House of Commons, for leave to bring in a Bill "for regulating the Profession and Practice of Apothecaries, Surgeon-apothecaries, and Practitioners in Midwifery, in England and Wales." We are authorised to state, that the General Committee do not mean to introduce the Bill till after the Christmas recess; and that it will be previously printed and published. As many of our readers may not be acquainted with the forms of the House, and much misconception and confusion consequently took place during the progress of the Bill that was last session read the first time, and then withdrawn, we take this opportunity of remarking, that, *after a Bill has been printed, and read the first time, parties interested may petition for or against it; and that, when it has been read the second time, and ordered by the House to go to a committee, it may then receive such modifications as may be deemed necessary.*

Mr. Stevenson, Oculist and Aurist to her Royal Highness the Princess of Wales, will recommence his annual Course of Lectures on the Anatomy, Physiology, and Diseases of the Eye and Ear, about the middle of January.

Dr. Merriman will recommence his Lectures on Midwifery and the Diseases of Women and Children, on Monday, December 6, at half-past ten o'clock.

Preparation of the Porporino Red, by LAMPADIUS.—The name of *porporino* is given at Rome to an artificial animal substance, which is employed for engraving in stone and the mosaic work. Different shades of it are found in St. Peter's church, where it is employed as an ornament.

The *porporino* red is a fine brown red, its fracture is scaly, it has a very little polish, and is of considerable weight. This mass fuses in the fire, and is afterwards run into moulds. It is so hard that it can be used in all the operations of engraving on stone.

M. Lampadius having obtained a piece, after several experiments he completely succeeded in his endeavors to imitate it, in the following manner. He took two parts of very white sand, one of pure clay, one and a half of pure minium, half a part of purified potash, half a part of white arsenic, and four parts of saltpetre.

When all these ingredients were well pounded, and mixed in a marble mortar, he added five parts of fine and perfectly pure copper filings, mixing the whole well together.

He afterwards took a Hessian crucible; and making it red in the fire, he put the mixture into it with a ladle, and covered it with a cover made to fit exactly, that none of the fuel might mix with it; he then let the whole remain in fusion for an hour.

In the mean time he heated a clay mould, selected for the purpose, the inside of which was chalked, that the mass might not adhere to it. When the mould was heated to incandescence, the mass was poured into it, covered over with a lid, also heated, and the whole left to cool very slowly; for if it cool suddenly the mass becomes brittle. He was particularly careful to choose the ingredients very pure, not to stir the mass with an iron instrument, to prevent the admission of any dust from the fire, and to use nitre that was entirely free from muriatic acid.

New Example of Combustion during Combination.—It is well known that when sulphur is made to combine with copper, iron, and some other metals, previously reduced to powder, and well mixed, the compound becomes red hot, and glows like a live coal just at the instant of its formation. The same thing takes place when phosphorus is made to unite with lime, barytes, and strontian. When quicklime is slacked in obscurity, it frequently becomes luminous; and there is little doubt that the same thing would happen to barytes and strontian. Chevreul has lately observed that when barytes or strontian is heated in contact with muriatic acid gas, the gas is absorbed, and the earthy salt formed becomes red hot. There can be little doubt that this evolution of heat is owing to the condensation of the gas. It is true that in the present case the agency of oxygen is not excluded; for if we adopt the opinion of Davy respecting the composition of muriatic acid, it is obvious that in the present case a double decomposition takes place. The chlorine of the muriatic acid unites with the metallic basis of the barytes, and forms *barytane*, while the hydrogen of the muriatic acid combines with the oxygen of the barytes, and forms water; but if we consider that both muriatic acid and barytes are products of combustion, it will be obvious that the presence of the oxygen alone cannot account for the light and heat evolved.

BOTANICAL REPORT.

THERE has been so little of novelty in the botanical world for some months past, that we have met with nothing sufficiently interesting to rouse us from our lethargy; and we have suffered the usual period to pass over again and again without furnishing a report on the subject.

The BOTANICAL MAGAZINE has indeed continued to be regularly published, and many very curious plants have been there described and figured; English Botany too has eked out its dribblets; but this long-beaten track we have not felt disposed to tread over, expecting some inducement to deviate into a more interesting path.

At length a new work has appeared, which, for its importance, and more especially for the excellency of its execution, deserves to be particularly noticed; we shall offer no apology for making it the subject of the present report. It is entitled

FERDINANDI BAUER *illustrationes Floræ Novæ-Hollandiæ sive icones generum quæ in Prodromo Floræ Novæ-Hollandiæ et Insulæ Van-Diemen, descripsit Robertus Brown.* This work is intended to consist of figures of all the genera described by Mr. Brown, in his *Flora Novæ-Hollandiæ*; of which, as yet, only a part of the *Prodromus* has been made public. In general one species only in each genus will be figured, except when the genus shall consist of several species, divided by the author into two or more natural sections, the different habit or structure of which may require illustration, when the necessary examples will be given. No letter-press will accompany the plates, but with the first number is given a general table, to which the letters, figures, and marks on each plate refer. Thus, by always preserving the same characters to denote similar parts, one general table of explanation serves for the whole; a mode which is attended with this farther advantage, that any person studying the genera from these plates will soon acquire a *prima-facie* knowledge of all the characters, and will no longer find it necessary to refer to any explanation.

Description is supposed to be rendered unnecessary, by the reference, always engraved on the plate, to Mr. Brown's work, where it is to be expected that every necessary information will be found. At present, however, a part only of the *Prodromus Floræ Novæ-Hollandiæ* is published; but it is to be hoped that the remainder will not be much longer held from the botanical world. When the larger work, of which this may be considered as the herald, shall appear, more ample details may be expected. But should no more than the *Prodromus* ever see the light, when this shall be completed the botanical reader will not much feel the want of a more copious history.

But, to return to the ILLUSTRATIONS. The drawings, we are informed in the Preface, have been, for the most part, made from the living plants in their native soil; for Mr. Bauer and Mr. Brown both accompanied Captain Flinders on his voyage round the Coasts of New-Holland, in the years 1802, 3, 4, and 5. For some of the genera, not detected in this voyage, Mr. Bauer is indebted to the collection of drawings made under the direction of Sir Joseph Banks, during Captain Cook's first voyage round the world; and some few will necessarily be taken from dried specimens, preserved in the herbarium of this botanist, or in that of Mr. Brown.

The

The first number consists of the five following articles:

1. *JOHNSONIA lupulina*. Brown Prod. page 287.
2. *PTEROSTYLIS grandiflora*. Ibid, page 327
3. *BANKSIA coccinea*. Ibid, page 394.
4. *CHLOANTHES stæchadis*. Ibid, page 514.
5. *STYLIDIUM violaceum*. Ibid, page 569.

The drawings are executed in the first style. The whole plant, or such portion of it as the size of a large folio plate will admit of, is represented of the natural size, and dissections of the parts of fructification, in almost every point of view, are added. Many will, we apprehend, think that these have been multiplied even beyond what is necessary. But when it is recollected that Mr. Bauer is not only a draughtsman of the very first order, but is likewise an excellent botanist; and that these dissections are made, the drawings taken, and the engravings executed by the same hand; the botanical student will feel very grateful for the pains that have been taken to display the minute organs of fructification in such a conspicuous manner, that the structure of the different genera may perhaps be better studied from these representations, than from the plants themselves; for very few persons are capable of making such dissections, and adapting them to the microscope, so as to display the various parts in so lucid a manner; and to those that can, the value of the time spent in such enquiries, will be no mean consideration.

Certain persons who value these things more as pictures than as illustrations of the science of botany, may probably consider the plate as too crowded, from the number of these dissections; and we are not sure but that our artist would have acted more wisely, that is, more consonant to his own interest, had he put these dissections into a separate plate, by which means the beautiful representations of the plant would have stood distinct and unincumbered.

We hope that Mr. Bauer will meet with due encouragement to proceed with his illustrations, which, when completed, will, in our opinion, outrival the most celebrated botanical works, that are now carrying on upon the continent. The circumstances of the times, it must be allowed, are not very favorable to the prosecution of works of this nature; yet it would be a disgrace to the nation, if this excellent artist should not be able to proceed for want of encouragement, whilst, under similar difficulties, not one only, but several, more expensive works are carrying on at the same time in Paris; none of which, however, in faithfulness of representation and accuracy of dissection, can vie with the one which we are now recommending. The price of the number colored is one guinea and a half, and only five shillings plain. These prices seem a little disproportionate, but the colored copies may really be considered as cheap, when the high style in which they are finished, hardly exceeded by the drawings themselves, is taken into the account.

They are dissected, drawn, and engraved, by the same hand, a circumstance of great moment to insure faithful imitation; the coloring of the present number is executed in so masterly a manner, that we cannot but suspect that Mr. Bauer himself has at least put a finishing hand to them.

The fourth and fifth volume of the *Hortus Kewensis*, which finishes the work, have been some time printed; we fear the publication is delayed by Mr. Aiton's indisposition.

LONDON PRICES OF DRUGS.—Nov. 26.

(To be continued regularly.)

	£.	s.	d.	£.	s.	d.	per		£.	s.	d.	£.	s.	d.	per	
Aloes Barbadoes, from	21	0	0	to 22	0	0	C.	Gum Guaiacum, from	0	2	6	to 0	4	6	C.	
— Cape	9	10	0	0	10	0	—	— Mastic	0	4	6	0	0	0	lb.	
— Succotrina ..	20	0	0	0	0	0	—	— Myrrh	15	0	0	0	18	0	C.	
— Epatica or E.I.	10	0	0	0	12	0	—	— Olibanum	8	0	0	0	10	0	—	
Angelica Root	9	0	0	0	9	9	—	— Oppoponax ..	80	0	0	0	0	0	—	
Alkanet Root	9	0	0	0	9	9	—	— Sandrac	6	10	0	0	7	7	—	
Antimony Crude ..	4	5	0	0	4	10	—	— Seneca Garbled	5	2	0	0	5	5	—	
Aqua Fortis	S.	0	8	0	D.	1	1 lb	— Tragacanth ..	48	0	0	0	50	0	—	
Arrow Root fine....	0	2	0	0	0	3	6	Jalap	0	3	9	0	4	0	lb.	
— ordinary	0	1	0	0	0	1	6	Ipecacuanha	0	14	0	0	14	6	—	
Arsenic Red	6	10	0	0	7	0	C.	Isinglass Book	0	11	0	0	12	0	—	
— White	3	18	0	0	0	0	—	— Leaf	0	11	0	0	12	0	—	
Balsam Capi	0	4	6	0	5	0	lb.	— Long Staple	0	11	0	0	12	0	—	
— Peru	0	15	0	0	16	0	—	— Short Staple	0	11	0	0	12	0	—	
— Tolu	0	12	0	0	0	0	—	Manna Flakey	0	8	0	0	8	6	—	
Bark Jesuits Com. ..	0	2	6	0	3	0	—	— Sicily in Sorts	0	5	0	0	0	0	—	
— Second	0	4	0	0	5	0	—	Musk China	0	17	0	0	18	0	oz.	
— Quil or best ..	0	7	0	0	8	0	—	Nux Vomica	2	0	0	0	2	0	C.	
— Red	0	7	0	0	10	0	—	Oil of Vitriol	0	0	3½	0	0	0	lb.	
— Yellow	0	3	0	0	4	6	—	Opium East-India ..	0	19	6	1	0	0	—	
Borax refined E.I. ..	5	10	0	0	6	0	C.	— Turkey	1	2	0	0	0	0	—	
— English	0	2	8	0	0	0	lb.	Pink Root	0	5	0	0	0	0	—	
— unrefined or Tinc.	6	0	0	0	0	0	C.	Quicksilver	0	4	11	0	0	0	—	
Camphire refined ..	0	6	9	0	0	0	lb.	Rhubarb East-India	0	3	0	0	5	0	—	
— unrefined	24	0	0	0	25	0	C.	— Russia	0	14	0	0	0	0	—	
Cantharides	0	12	0	0	0	0	—	Saffron Spanish	1	10	0	0	1	15	—	
Cardamoms (best) ..	0	7	6	0	0	0	lb.	— French	1	10	0	0	0	0	—	
Cassia Buds	12	0	0	0	0	0	C.	Sago	3	0	0	0	3	5	C.	
— Fistula W.I.	12	0	0	0	0	0	in bond	Sal. Ammoniac	10	10	0	0	0	0	—	
— Lignia	12	0	0	0	0	0	—	Sarsaparilla	0	3	0	0	0	0	lb.	
Castor American ..	2	8	0	0	2	10	0 lb.	Sassafras	10	0	0	0	0	0	T.	
— Russia	11	0	0	0	0	0	—	Scammony Aleppo ..	1	7	0	0	0	0	lb.	
Castor Oil per bottle	}	0	3	9	0	4	3 bo	— Smyrna	0	13	0	0	0	0	—	
1½ lb.								Senna	0	2	6	0	4	6	—	
Coculus Indicus	3	0	0	0	0	0	C.	Seeds Anni Alicant	6	6	0	0	7	0	C.	
Colocynth Turkey ..	0	4	6	0	5	0	lb.	— Coriander English	1	10	0	0	1	16	—	
Columbo Root	2	15	0	0	3	0	C.	— Cummin	5	5	0	0	5	10	—	
Cream of Tartar	8	0	0	0	9	10	—	— Fenugreek	2	5	0	0	2	10	—	
Gallangal East-India	5	0	0	0	0	0	C.	Shellack	6	10	0	0	7	0	—	
Gentian Root	4	15	0	0	4	17	6	Sticklack	6	10	0	0	7	0	—	
Ginsang	0	1	6	0	0	0	lb.	Snake Root	0	16	0	0	0	0	lb.	
Grains of Guinea	5	10	0	0	6	0	C.	Soap Castile or Spanish	10	0	0	0	11	0	C.	
Gum Ammo. Drop ..	30	0	0	0	0	0	—	Spermaceti refined ..	0	2	7	0	0	0	lb.	
— Lump	8	0	0	0	9	0	—	Tamarinds West-India	8	10	0	0	9	0	C.	
— Animi	3	10	0	0	7	10	—	Tapioca Lisbon	0	0	8	0	1	0	lb.	
— Arabic E.I.	2	0	0	0	4	0	—	Turmeric Bengal ..	3	3	0	0	0	0	C.	
— Turkey Fine	8	10	0	0	9	9	—	— China	4	5	0	0	4	15	—	
— Barbary	3	10	0	0	3	12	6	— West-India	6	10	0	0	7	0	—	
— Assafœtida	15	0	0	0	18	0	—	Verdigris Wet	0	3	6	0	0	0	lb.	
— Benjamin	8	10	0	0	35	0	—	— Dry	0	5	10	0	0	6	—	
— Cambogium	20	0	0	0	26	0	—	— Crystallized	0	8	6	0	9	0	—	
— Copal scraped ..	0	2	0	0	3	6	lb.	Vitriol Roman	0	0	7	0	0	0	—	
— Galbanum	15	0	0	0	16	0	C.	— Foreign white ..	3	10	0	0	3	15	0	C.

Price of Vials per Gross.—8 oz. 70s.—6 oz. 58s.—4 oz. 47s.—3 oz. 43s.—2 oz. 36s.—1 oz. 30s.—
 ½ oz. 24s.

OBSERVATIONS.

At recent Sales of Merchandize by Auction, Messrs. Jenson and Lewis sold 6 Mats of Turkey Gum Arabic, 6l. 8s. per Cwt.—12 Casks of Arrow Root, 11d. to 14d. per lb.—10 Kegs Tamarinds, 10l. 2s. to 10l. 12s. 6d. per Cwt.—2 Casks of Burgundy Pitch, 60s. to 62s. per Cwt.—1 Chest and 1 Cask of Assafœtida, 10l. to 10l. 15s. per Cwt.—2 Casks of Arrow Root, 60s. per Cwt.—1 Box Jesuits Bark, 5s. 6d. per lb.—10 Chests Magnesia 80s. to 102s. per Cwt.—2 Boxes and 3 Casks Trimmed Rhubarb, 1s. 5d. to 4s. 10d. per lb.

METEOROLOGICAL TABLE.

From October 25, to November 25, 1813.

D.	Therm.			Barom.	Hygrom.		Winds.	Atmos. Variation.
					Dry.	Damp.		
26	43	45	43	30	—	—	E.	F..—..C..—...
27	43	43	42	29 ⁹	8	6 11	NE..	R.—.C.
28	42	44	41	—	29 ⁹	—	11 13 10 N.NE.	C.R..
29	39	41	40	29 ⁹	—	—	11 — NE.	F.R.C...
30	37	50	51	29 ³	29 ³	—	12 19 22 W.	Fog.R..—.
31	50	48	44	29 ¹	29 ²	—	24 20 19 W..	F.—..Fog..
1	40	47	42	29 ³	6	—	20 15 16 W.	F.—..—.
2	40	49	46	29 ⁷	8	—	19 20 21 W..	F..R...R.
3	41	45	43	30	30 ³	—	15 10 16 N..	F.—..—.
4	36	46	42	—	—	—	15 15 15 NW..	F.—..—.
5	39	47	45	—	30 ²	—	16 18 20 N.	Fog...F...—...
6	39	46	42	30	29 ³	—	16 15 12 W.	F.—..—.
7	43	49	47	29 ⁶	5	—	10 16 19 S.	R..C.R..
8	46	49	48	—	—	—	20 — W..	F..R...F...
9	49	53	48	29 ⁶	7	—	19 15 17 W..	F.—..—.
10	49	52	50	—	6	—	20 — 22 W..	C..R...C..
11	50	55	52	—	7	—	20 — 16 NW..	F.—..—.
12	51	54	45	—	—	—	15 — 16 NW..	C.—..C.
13	41	45	41	—	—	—	— — 17 NW..	C.C.—...
14	38	42	44	29 ⁵	4	—	15 — W.	F.—..R..
15	40	45	41	3	—	—	14 12 16 NE.	C.—...
16	39	42	48	2	—	—	— — NE..	F.—..R..
17	38	40	37	29 ²	—	—	15 — W.	C..Snow...C..
18	38	41	39	29 ⁵	7	—	— — W..	C..F.—.
19	42	47	50	—	—	—	16 20 22 W.	R.—..C..
20	50	54	52	29 ⁴	9	—	22 — W..	C.—..—.
21	51	56	52	—	—	—	20 — 17 SW.	C...
22	52	55	50	30	—	—	14 15 — S.	C...
23	49	51	47	30	—	—	15 — 12 S.	C...
24	47	49	44	30	30 ¹	—	12 — E.	C...
25	44	47	42	—	—	—	— — 11 E.	C...

Quantity of rain from the 26th of October to the 25th of November, two inches ²⁴/₁₀₀.

On the 8th, storm of thunder, with heavy rain, and on the 17th, first fall of snow this winter. Cases of cholera have still occurred, but the prevailing disease has been complaints of the chest, generally affecting the mucous membrane, but sometimes the parenchyma of the lungs, especially in children.

List of Diseases in November, in the Practice of DR. FOTHERGILL,

Tussis et Dyspnœa .. 34	Hypochondriasis 1	Vomitus 2
Catarrhus 11	Hysteria 2	Dysphagia 1
Pertussis 5	Hæmorrhoides 2	Icterus 2
Asthma 2	Morbi Infantiles 6	Dyspepsia 3
Peripneumonia 1	Typhus 2	Gastrodynia 5
Phthisis Pulmonalis.. 4	Rheumatismus 11	Enterodynia 1
Scrofula 1	Cephalalgia 3	Colica Pictorum 1
Marasmus 2	Carditis 1	Vermes 3
Asthenia 5	Anasarca 1	

MONTHLY

MONTHLY CATALOGUE OF MEDICAL BOOKS.

SYNOPSIS Nosologia Methodicæ Auctore Gulielmo Cullen, M.D. To which is added an Appendix, containing a Synopsis of the Systems of Sauvages, Linnæus, Vogel, Sagar, M^r Bride, Cullen, Swediaur (1812), Young (1813), and a translation of Cullen's Nosology, with references to the best authors who have written since his time. By John Thomson, M.D.—Longman and Co.

Description of the Retreat, an institution near York, for insane persons of the Society of Friends; containing an account of its origin and progress, the modes of treatment, and a statement of cases. By Samuel Tuke.—Darton and Harvey.

Lectures on Inflammation, exhibiting a View of the general Doctrines, pathological and practical, of Medical Surgery. By John Thomson, M.D. F.R.S.E. Professor of Surgery to the Royal College of Surgeons; and Regius Professor of Military Surgery in the University of Edinburgh.—Cadell and Co.

Medical Transactions, published by the College of Physicians in London. Vol. IV.—Longman and Co.

Observations on the Nature and Treatment of Consumption; addressed to Patients and Families. By Charles Pears, M.D. F.L.S. 8vo.—Highley and Son.

Anatomical Tables of the Human Gravid Uterus; in Two Classes. By Mr. Hogben, Surgeon. Dedicated to the Royal College of Surgeons, London.—Callow.

A Treatise on Midwifery; containing References to the Anatomical Tables.—Callow.

NOTICES TO CORRESPONDENTS.

The Editor is much obliged to his friend Dr. J. C. Warren, for his care in supplying him with the New England Medical Journal, the two last numbers of which have just been received. As the London Medical and Physical Journal finds its way to Boston when letters are intercepted, Dr. W. must accept a public instead of a private acknowledgment, for his kind offices to the Editor on various occasions.

A physician wishes to be informed by the author of the Memoir on Medical Reform, whether, when he says "The Edinburgh College of Physicians are obliged to admit all Doctors of the Scottish Universities to their association without examination, and only on paying the necessary fees;" he means to state, that those Doctors who have obtained their degrees in physic from Aberdeen or St. Andrew's by certificate, can claim admission into the Edinburgh College, on paying the necessary fees.

The names of several gentlemen have been received as subscribers to the General Index, and others are solicited.

Want of room has occasioned the insertion of communications from the following gentlemen to be deferred till our next Number:—Dr. Young; Mr. G. Borrett; Mr. C. Abel; Mr. Robert Semple; Mr. L. W.; W. M. T.

The back Numbers will continue to be sold at 1s. 6d. till February 1, as announced in our last.

CORRIGENDA.

For Dr. Yeates,	p. 465	read Dr. Yeats.
— Viqu. d'Azyr,	p. 501	— Viqu. d'Azyr.
— Ditto,	p. 502	— Ditto.

